Sun Chemical Corporation
135 W. Lake Street

Northlake IL
USA 60164

AMERICAN PACKAGING CORPORATION
850 W. JAMES STREET
COLUMBUS, WI 53925
USA

June 08, 2015

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SAFETY DATA SHEET

Section 1. Identification

Product code : R39SNPA1512/TTRK
GHS product identifier : NB501K CATALYTIC LACQUER

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Colorant; Printing ink related material; Printing ink.

Manufacturer / Distributor : Sun Chemical Corporation
North American Inks
135 West Lake Street
Northlake, IL 60164
US: +1 866 786 8140

Emergency telephone number (with hours of operation) : (800) 424-9300 (U.S.) (24 hours)
(703) 527-3887 (International) (24 hours)
Other information : (513) 830-8500

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
TOXIC TO REPRODUCTION [Unborn child] - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Narcotic effects] - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger
Hazard statements : Highly flammable liquid and vapor. Causes serious eye damage. Causes skin irritation. Suspected of damaging the unborn child. May cause drowsiness and dizziness. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.

Section 2. Hazards identification

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

Ingredient name	CAS number	%
Toluene	108-88-3	25 - 50
Xylene	1330-20-7	5 - 10
n-Propyl Alcohol	71-23-8	2.5 - 5
Ethyl Benzene	100-41-4	1 - 2.5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician.

Section 4. First aid measures

Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May cause burns to mouth, throat and stomach.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Toluene	**OSHA PEL 1989 (United States, 3/1989).** STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL Z2 (United States, 2/2013).** AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. **ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours.
Xylene	**ACGIH TLV (United States, 4/2014).** STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
n-Propyl Alcohol	**OSHA PEL (United States, 2/2013).** TWA: 500 mg/m³ 8 hours. TWA: 200 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 625 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 500 mg/m³ 8 hours. TWA: 200 ppm 8 hours. **ACGIH TLV (United States, 4/2014).** TWA: 100 ppm 8 hours.
Ethyl Benzene	**ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Clear.

Odor : Characteristic.

Odor threshold : Not applicable.

pH : Not tested

Melting point : Not available.

Boiling point : Lowest known value: 97°C (207°F)

Flash point : Lowest known value: -18 to 23°C (0 to 73.4°F)

VOC : 50.43%

Evaporation rate : Highest known value: 2 (toluene) Weighted average: 1.74compared with butyl acetate

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not tested

Vapor pressure : Not available.

Vapor density : Not tested

Density : 0.965 g/cm³ (8.055 lbs/gal)

Solubility : Not tested

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not applicable.

Section 9. Physical and chemical properties

Decomposition temperature : Not applicable.

Viscosity : Not tested

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	28.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
n-Propyl Alcohol	LD50 Dermal	Rabbit	5040 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Ethyl Benzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Conclusion/Summary : No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Eyes : No known significant effects or critical hazards.

Respiratory : No known significant effects or critical hazards.

Sensitization

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Section 11. Toxicological information

Respiratory : No known significant effects or critical hazards.

Mutagenicity

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Xylene	-	3	-
Ethyl Benzene	-	2B	-

Reproductive toxicity

Conclusion/Summary :

Teratogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
toluene	Category 3	Not applicable.	Narcotic effects
propan-1-ol	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
toluene	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths

Section 11. Toxicological information

skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	26907.7 mg/kg
Dermal	8887.1 mg/kg
Inhalation (gases)	40395.8 ppm
Inhalation (vapors)	375.1 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 15500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - FRY	96 hours
	Chronic NOEC 28000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
Xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours

Section 12. Ecological information

	Acute LC50 3300 to 4093 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
n-Propyl Alcohol	Acute LC50 2500000 µg/l Fresh water	Crustaceans - Asellus aquaticus	48 hours
	Acute LC50 2950000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 3800000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
Ethyl Benzene	Acute EC50 2930 to 4400 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 40000 µg/l Marine water	Crustaceans - Cancer magister - Zoea	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 6800 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Chronic NOEC 3300 µg/l Marine water	Fish - Menidia menidia	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Toluene	2.73	-	low
Xylene	3.12	-	low
n-Propyl Alcohol	0.2	-	low
Ethyl Benzene	3.6	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Xylene	1330-20-7	Listed	U239
Toluene; Benzene, methyl-	108-88-3	Listed	U220

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1210	UN1210	UN1210	UN1210	UN1210
UN proper shipping name	PRINTING INK	PRINTING INK	PRINTING INK	PRINTING INK	PRINTING INK
Transport hazard class(es)	3	3	3	3	3
Packing group	II	II	II	II	II
Environmental hazards	Yes.	Yes.	Yes.	Yes.	No.
Additional information	-	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

TSCA 8(b) inventory : Listed

U.S. Federal regulations : **TSCA 4(a) final test rules**: Polytetrafluoroethylene

Clean Water Act (CWA) 307: toluene; Ethyl Benzene; benzene

Clean Water Act (CWA) 311: xylene; toluene; Ethyl Benzene; benzene; formaldehyde

SARA 313

	Product name	CAS number	%
Supplier notification	Toluene Xylene (Mixed Isomers) Ethylbenzene	108-88-3 1330-20-7 100-41-4	38.391 6.3047 1.4938

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Toxics in Packaging (CONEG) : In compliance.

Canada inventory : Not determined.

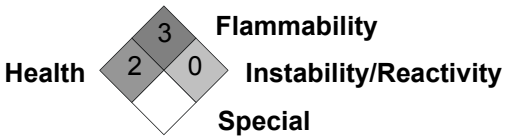
International regulations

International lists : **Australia inventory (AICS)**: At least one component is not listed.
China inventory (IECSC): At least one component is not listed.
Japan inventory: At least one component is not listed.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): At least one component is not listed.
Taiwan inventory (CSNN): Not determined.

Europe Inventory: Please contact your supplier to get the information.

Section 16. Other information

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision	:	5/2/2015.
Date of previous issue	:	No previous validation.
Version	:	1
Regulatory information	:	Canada: (905) 796-2222 US: (201) 933-4500 PPG: (513) 681-5950
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	:	Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

NLLGS0060418

SAFETY DATA SHEET

Belle Color NS Extender RE-1

Section 1. Identification

Product no. : 1543402
Product name : Belle Color NS Extender RE-1

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Printing inks, coatings, toners, and related materials

Uses advised against : Not available

Manufacturer : INX International Ink Co.
MSDS Department
150 N Martingale Rd, Suite 700
Schaumburg, Illinois 60173
United States
800.347.4657

24 Hour Emergency Phone : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (+1 352 323 3500 outside of North America)
SDS Email Information : MSDS@inxintl.com

Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

GHS label elements

Hazard pictograms :

Signal word : Danger
Hazard statements : Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause drowsiness and dizziness.

Precautionary statements

General	:	Read label before use.
Prevention	:	Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	:	. Store in a well-ventilated place. Keep cool.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Acetic acid, propyl ester	50 - 70	109-60-4
Isopropanol	12.5 - 15	67-63-0
Formaldehyde Modified Rosin	0.2 - 1	

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.\'20 If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	Causes serious eye irritation.
Inhalation	:	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
Skin contact	:	May cause an allergic skin reaction.
Ingestion	:	Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact	:	Adverse symptoms may include the following: irritation redness
Ingestion	:	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	:	Use dry chemical, CO#, water spray (fog) or foam.
Unsuitable extinguishing media	:	Do not use water jet.
Specific hazards arising from the chemical	:	Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows.\'20 Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in a segregated and approved area.\'20 Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. . Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits

Acetic acid, propyl ester	**OSHA PEL 1989 (1989-03-01)** PEL: Permissible Exposure Level 840 mg/m3 200 ppm **Pollutant concentration that should not be exceeded during working hours and which workers are believed to be exposed during a period of 15 minutes maximum, without experiencing: a) irritation. b) chronic or irreversible tissue damage. c) dependent toxic effects of exposure rate. d) Narcosis of sufficient magnitude to increase susceptibility to accidents. e) The reduction of ability to get to safety by their own means.** 1,050 mg/m3 250 ppm **OSHA PEL (1993-06-30)** PEL: Permissible Exposure Level 840 mg/m3 200 ppm **NIOSH REL (1994-06-01)** Time Weighted Average (TWA) 840 mg/m3 200 ppm **Pollutant concentration that should not be exceeded during working hours and which workers are believed to be exposed during a period of 15 minutes maximum, without experiencing: a) irritation. b) chronic or irreversible tissue damage. c) dependent toxic effects of exposure rate. d) Narcosis of sufficient magnitude to increase susceptibility to accidents. e) The reduction of ability to get to safety by their own means.** 1,050 mg/m3 250 ppm **ACGIH TLV (1994-09-01)** TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 835 mg/m3 200 ppm **TLV-STEL: Threshold Limit Value - Short Time Exposure Level** 1,040 mg/m3 250 ppm
Isopropanol	**OSHA PEL 1989 (1989-03-01)** PEL: Permissible Exposure Level 980 mg/m3 400 ppm **Pollutant concentration that should not be exceeded during working hours and which workers are believed to be exposed during a period of 15 minutes maximum, without experiencing: a) irritation. b) chronic or irreversible tissue damage. c) dependent toxic effects of exposure rate. d) Narcosis of sufficient magnitude to increase susceptibility to accidents. e) The reduction of ability to get to safety by their own means.** 1,225 mg/m3 500 ppm **OSHA PEL (1993-06-30)** PEL: Permissible Exposure Level 980 mg/m3 400 ppm **NIOSH REL (1994-06-01)** Time Weighted Average (TWA) 980 mg/m3 400 ppm **Pollutant concentration that should not be exceeded during working hours and which workers are believed to be exposed during a period of 15 minutes maximum, without experiencing: a) irritation. b) chronic or irreversible tissue damage. c) dependent toxic effects of exposure rate. d) Narcosis of sufficient magnitude to increase susceptibility to accidents. e) The reduction of ability to get to safety by their own means.** 1,225 mg/m3 500 ppm **ACGIH TLV (2003-01-01)** TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 200 ppm **TLV-STEL: Threshold Limit Value - Short Time Exposure Level** 400 ppm

Appropriate engineering controls : Use only with adequate ventilation.\'20 Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.\'20 In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.\'20 Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product., When there is a risk of ignition from static electricity, wear anti-static protective clothing., For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.\'20 Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Colorless.
Odor	:	Not available.
Odor threshold	:	Not available.
pH	:	Not available.
Melting point	:	Not available.
Boiling point	:	213.19 - 215.62 °F (100.66 - 102.01 °C)
Flash point	:	< 23 °C (73.40 °F) Not Measured. Flashpoint is estimated to be < 23°C (73°F).
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	**Lower:** Not available. **Upper:** Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Density	:	0.888 g/cm3
Relative density	:	0.89
Solubility	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Viscosity	:	**Dynamic:** Not available. **Kinematic:** Not available.
Volatile.	:	86.65 %(m) Weight % 88.7 %(V) Volume %
VOC %	:	84.65 %(m) Weight % 86.92 %(V) Volume %
Coating VOC	:	6.38 lb/gal 765 g/l

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetic acid, propyl ester				
	LD50 Oral	Rat	9,370 mg/kg	-
Isopropanol				
	LD50 Oral	Rat	5,000 mg/kg	-
	LD50 Oral	Rat	5,045 mg/kg	-
	LC50 Inhalation	Rat	16,000 ppm	8 h
	LD50 Dermal	Rabbit	12,800 mg/kg	-

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetic acid, propyl ester	Eyes - Mild irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-		-
Isopropanol	Eyes - Moderate irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Moderate irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.

Eyes : Not available.

Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.

Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Acetic acid, propyl ester			
Isopropanol		3	

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
propyl acetate			
propan-2-ol			

Specific target organ toxicity (repeated exposure)

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Isopropanol			
	Acute LC50 1,400,000 µg/l	Fish - Western mosquitofish	96 h
	Acute LC50 4,200 mg/l Fresh water	Fish - Harlequinfish, red rasbora	96 h
	Acute LC50 9,640,000 µg/l Fresh water	Fish - Fathead minnow	96 h
	Acute LC50 6,550,000 µg/l Fresh water	Fish - Fathead minnow	96 h
	Acute LC50 1,400,000 µg/l	Fish - Bluegill	96 h

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Formaldehyde Modified Rosin	3.3	-	low

Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible.\'20 Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.\'20 Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Regulatory information	Proper shipping name	UN - Number	Hazard classification	Packing group	Additional information
IATA	Printing ink related material	UN1210	3	II	
IMDG	Printing ink related material	UN1210	3	II	
DOT Classification	Printing ink related material	UN1210	3	II	

Mexico Classification	Printing ink related material	UN1210	3	II	
TDG Class	Printing ink related material	UN1210	3	II	

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b):**
Not determined.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

SARA 302/304
Not applicable.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Classification
Acetic acid, propyl ester	50 - 70	312 FIRE312 IMMED HLTHF, AH
Isopropanol	12.5 - 15	312 DELAY HLTH312 IMMED HLTH312 FIREF, AH
Formaldehyde Modified Rosin	0.2 - 1	AH

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Isopropanol	67-63-0	12.5 - 15
Supplier notification	Isopropanol	67-63-0	12.5 - 15

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65
This product does not contain intentionally added reportable substances that are known to the State of California to cause cancer and/or birth defects.

International regulations

International lists : **Australia inventory (AICS):** Not determined.**Canada inventory (DSL/NDSL):** Not determined.
Europe inventory: Not determined.
Japan inventory: Not determined.
China inventory (IECSC): Not determined.
Korea inventory: Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.

Section 16. Other information

History

Date of printing	:	05/16/2017
Date of issue/Date of revision	:	05/16/2017
Date of previous issue	:	00/00/0000
Version	:	1.0
Prepared by	:	MSDS@inxintl.com
References	:	Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

BLEND 1642
Product ID: HS536000
Revised: 12-30-2015
Replaces: 12-01-2008

1. IDENTIFICATION

Product Identifier:	BLEND 1642
Other Identifiers:	L0002115/R27048
CAS Number:	MIXTURE
Recommended Use:	For use as a solvent.
Restrictions on Use:	No data available.

Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION

GHS Classification(s):
Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

GHS Label Elements:

GHS Hazard Symbols:

Signal Word: Danger

Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Precautionary Statements:

Prevention:
Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust, gas, mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor if you feel unwell.

Specific treatment (see First Aid on SDS or on this label).
If skin irritation occurs: Get medical advice or attention.
If eye irritation persists: Get medical advice or attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use carbon dioxide, alcohol foam, dry chemical, water fog to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store in a secure manner.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: May be harmful or fatal if swallowed and enters airways. May cause damage to the kidneys, liver, blood, and may cause birth defects and other reproductive harm. Drinking of alcoholic beverages is casually related to to cancers of the esophagus, larynx, oral cavity, pharynx and liver.

Percentage of Components with Unknown Acute Toxicity:

Dermal: 20 %
Inhalation Vapor: 40 %
Inhalation Dust/Mist: 40 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

Chemical or Common Name/Synonyms	CAS Number	% by Wt.
Ethyl Acetate	141-78-6	< 50 %
N-Propyl Acetate	109-60-4	< 50 %
Ethyl Alcohol	64-17-5	< 30 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do. In case of irritation from airborne exposure, move to fresh air. Get medical attention, if symptoms persist.

Skin Contact: If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. Discard items which cannot be decontaminated. Destroy contaminated leather clothing.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. Keep warm and quiet.

Ingestion: If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Most Important Symptoms/Effects, Acute and Delayed:

Eye Contact: Causes moderate to severe irritation. Liquid or vapor may cause: burning sensation. pain. watering. change of vision. eye injury. severe eye damage. discomfort. redness. corneal inflammation. May cause: light sensitivity. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism.

Skin Contact: Causes mild to moderate irritation. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis. Prolonged and repeated exposure may cause: cracking. inflammation. Contact may cause: sensitization. redness. discomfort.

Skin Absorption: May be harmful if absorbed through skin.

Inhalation: May cause moderate irritation. May irritate: nose. throat. respiratory tract. May cause: nasal discomfort and discharge. hoarseness. coughing. chest pain. difficulty breathing. nausea. headache. dizziness. drowsiness. loss of appetite. vomiting. diarrhea. High vapor concentrations may cause: central nervous system depression. vertigo. emotional lability. accelerated pulse. face redness. kidney and liver damage. unconsciousness. occasional urinary and fecal incontinence. death.

Ingestion: May cause mild irritation. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. weakness. abdominal pain. central nervous system depression. headache. dizziness. drowsiness. mental sluggishness. May cause damage to the: liver. kidneys. May cause effects similar to inhalation. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.

Indication of Immediate Medical Attention and Special Treatment Needed: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Carbon dioxide. Dry chemical. Alcohol foam. Water fog. DO NOT USE: Direct water stream. Water may be ineffective but should be used to cool fire-exposed structures and vessels.

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: HIGHLY FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. This material may produce a floating fire hazard. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame should be cooled with large quantities of water as needed to prevent weakening of container structure. Oxidizing chemicals may accelerate the burning rate in a fire situation. Prevent buildup of vapors or gases to explosive concentrations. Flammable concentrations of vapor can accumulate at temperatures above flash point.

Hazardous Combustion Products: Carbon dioxide. Carbon monoxide.

Special Protective Equipment and Precautions for Fire-Fighters: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. Avoid water accumulation. Product may reignite and burn on the water's surface. If container is not properly cooled, it can rupture in the heat of a fire. Move containers from fire area if possible without hazard. Water spray can be used to reduce intensity of flames and to dilute spills to a nonflammable mixture. Run-off from fire control may cause pollution. Do not use direct water stream. May spread fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: HIGHLY FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation.

Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

Methods and Materials for Containment and Clean Up: Stop the flow of material, if this is without risk. If fire potential exists, blanket spill with alcohol-type aqueous film-forming foam or use water spray to disperse vapors. Keep upwind of leak or spill. Keep out of low areas. Ground and bond all containers and handling equipment. Use non-sparking tools and equipment. CAUTION: Spilled material may be slippery. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. DO NOT use sawdust or other cellulose-type material. Place in non-leaking containers for immediate disposal. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Always open containers slowly to allow any excess pressure to vent. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Follow OSHA Regulations for flammable and combustible liquids and for airborne contaminants. Never use air pressure for transferring product. Take precautionary measures against static discharges. Use appropriate grounding and bonding practices. Use non-sparking tools and equipment.

Conditions for Safe Storage, Including any Incompatibilities: HIGHLY FLAMMABLE LIQUID. Store in a cool, well-ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. All electrical equipment in areas where this material is stored or handled should be installed in accordance with applicable regulatory requirements and the National Electrical Code. Protect against physical damage. Refer to local fire codes for storage requirements and allowable limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
Ethyl Acetate	400 ppm TWA; 1400 mg/m3 TWA
N-Propyl Acetate	200 ppm TWA; 840 mg/m3 TWA
Ethyl Alcohol	1000 ppm TWA; 1900 mg/m3 TWA

ACGIH Exposure Guidelines:

Component	Limits
Ethyl Acetate	400 ppm TWA
N-Propyl Acetate	200 ppm TWA; 250 ppm STEL
Ethyl Alcohol	1000 ppm STEL

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Individual Protection Measures:

Eye/Face Protection: Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Wear a full-face respirator, if needed.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant. Impervious. Consideration must be given both to durability as well as permeation resistance.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved air-purifying respirator with: Organic vapor cartridge. NIOSH-Approved Supplied Air Respirator (SAR). NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Chemical safety shoes. Rubber boots. Impervious clothing. Protective clothing. Launder contaminated clothing and clean protective equipment before reuse.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Colorless.
Odor: Sharp acetate odor.
Odor Threshold: N.D.
pH: N.A.
Freezing Point (deg. F): N.D.
Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: ~ 169 - 215 °F
Flash Point: 32 °F
Flash Point Method: Calculated.
Evaporation Rate (nBuAc = 1): > 1
Flammability (solid, gas): N.D.
Lower Explosion Limit: ~1.7
Upper Explosion Limit: ~19
Vapor Pressure (mm Hg): N.D.
Vapor Density (air=1): > 1
Specific Gravity or Relative Density: 0.8757 @ 25 Deg. C
Solubility in Water: Appreciable
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): 100
VOC (wt%): 100
VOC (lbs/gal): 7.29
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions.

Conditions to Avoid: Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid other ignition sources. Exposure to elevated temperatures can cause product to decompose.

Incompatible Materials: Oxidizing agents. Strong acids. Strong alkalies. Strong bases. Peroxides. Polymerization initiators. Chromium trioxide. Silica gel. Alumina. Amines. Nitric Acid. Perchloric Acid. Chlorosulfonic acid. Potassium tert-butoxide. Lithium tetrahydroaluminate. Oxygen under pressure. Acids. Halogenated compounds. Strong inorganic acids. Alkali metals.

Hazardous Decomposition Products: Carbon dioxide. Carbon monoxide. Acetic acid.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes. Ingestion. Inhalation. Skin. Absorption.

Symptoms/Effects: Acute, Delayed and Chronic:

Eye Contact: Causes moderate to severe irritation. Liquid or vapor may cause: burning sensation. pain. watering. change of vision. eye injury. severe eye damage. discomfort. redness. corneal inflammation. May cause: light sensitivity. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism.

Skin Contact: Causes mild to moderate irritation. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis. Prolonged and repeated exposure may cause: cracking. inflammation. Contact may cause: sensitization. redness. discomfort.

Skin Absorption: May be harmful if absorbed through skin.

Inhalation: May cause moderate irritation. May irritate: nose. throat. respiratory tract. May cause: nasal discomfort and discharge. hoarseness. coughing. chest pain. difficulty breathing. nausea. headache. dizziness. drowsiness. loss of appetite. vomiting. diarrhea. High vapor concentrations may cause: central nervous system depression. vertigo. emotional lability. accelerated pulse. face redness. kidney and liver damage. unconsciousness. occasional urinary and fecal incontinence. death.

Ingestion: May cause mild irritation. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. weakness. abdominal pain. central nervous system depression. headache. dizziness. drowsiness. mental sluggishness. May cause damage to the: liver. kidneys. May cause effects similar to inhalation. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.

Numerical Measures of Toxicity:

Component	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl Acetate	Rat: 5620 mg/kg	Rabbit: > 18000 mg/kg	4H Mouse: 1500 ppm
N-Propyl Acetate	Rat: 9370 mg/kg	Rabbit: > 20 ml/kg	No Data
Ethyl Alcohol	Rat: 7060 mg/kg	No Data	4H Rat: 124.7 mg/L

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Medical Conditions Aggravated by Exposure to Product: Eye disorders. Skin disorders. Respiratory system disorders. Central nervous system disorders. Liver disorders. Impaired respiratory function.

Other: Chronic exposure may produce anemia, bronchitis, leukocytosis, edema, blurry cornea, liver, kidney, and heart damages, blood alterations, and greasy degeneration of the viscera. Repeated overexposure may cause liver damage. Ethyl Alcohol:
Chronic: May cause reproductive and fetal effects. Laboratory experiements have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure my cause liver, kidney, and heart damage. Long term exposure can cause loss of appetite, weight loss, nervousness, memory loss, and mental retardation.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D001
Note: When Ethyl Acetate is a spent solvent, it is classified as a hazardous waste from a nonspecific source (F003), as stated in 40 CFR 261.31.

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Do NOT dump into any sewers, on the ground, or into any body of water.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number:	UN1993
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHYL ACETATE, N-PROPYL ACETATE)
Hazard Class:	3
Packing Group:	II
Label Required:	FLAMMABLE
Reportable Quantity (RQ):	5000# (Ethyl Acetate)

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	Yes	Yes	No	No

Regulated Components: Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Ethyl Acetate	141-78-6	Yes	No	No	No	No	No
Ethyl Alcohol	64-17-5	No	No	No	No	No	Yes*

***Prop 65 - May Contain the Following Trace Components:**
No data available.

Note: *Ethyl alcohol in alcoholic beverages is listed.

16. OTHER INFORMATION

Hazard Rating System
Health: 2*
Flammability: 3
Reactivity: 0
* = Chronic Health Hazard

NFPA Rating System
Health: 2
Flammability: 3
Reactivity: 0

Special Hazard: None

SDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

SDS Prepared by: JAK

Reason for Revision: New format. Changes made throughout the SDS.

Revised: 12-30-2015
Replaces: 12-01-2008

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

SAFETY DATA SHEET

TMW-95849

Section 1. Identification

GHS product identifier : ETHYL ACETATE BULK EXTENDER R17CROA1497

Product type : Liquid.

SDS # : 7g8h:a5ds:8j8

Relevant identified uses of the substance or mixture and uses advised against

Printing ink or additive.

Uses advised against	Reason
Not applicable.	

Supplier's details : Flint Group
14909 N. Beck Road
Plymouth, MI 48170
United States

Emergency telephone number (with hours of operation) : For Product Questions during business hours call (513) 934-6500
For Health and Safety Questions during business hours call□□ (734) 781-4600
24 Hour Emergency Spill Contact call: (800) 424-9300 Chemtrec (US/Canada)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness and dizziness.

Precautionary statements

Section 2. Hazards identification

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling.

Response : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
ethyl acetate	40 - 70	141-78-6
propan-2-ol	3 - 7	67-63-0

The specific chemical identity and/or exact percantage (concentration) of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ethyl acetate	**ACGIH TLV (United States, 3/2012).** TWA: 1440 mg/m³ 8 hours. TWA: 400 ppm 8 hours. **NIOSH REL (United States, 6/2009).** TWA: 1400 mg/m³ 10 hours. TWA: 400 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 1400 mg/m³ 8 hours. TWA: 400 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 1400 mg/m³ 8 hours. TWA: 400 ppm 8 hours.
propan-2-ol	**ACGIH TLV (United States, 3/2012).** STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. **NIOSH REL (United States, 6/2009).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 10 hours. TWA: 400 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Section 8. Exposure controls/personal protection

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Colorless.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melt point/Freeze point : Not available.

Boiling point : 77°C (170.6°F)

Flash point : Between -18°C (0°F) and 23°C (73°F).

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Density : 1009 g/l / 8.4201 lbs/gal

VOC data

75 % by weight
75.7 % by volume
756.7 g/l / 6.3 lbs/gal
759.4 g/l / 6.3 lbs/gal [With volume exclusion [water excluded]]

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethyl acetate propan-2-ol	LD50 Oral LD50 Dermal LD50 Oral	Rat Rabbit Rat	5620 mg/kg 12800 mg/kg 5045 mg/kg	- - -

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
propan-2-ol	-	3	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
ethyl acetate propan-2-ol	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Section 11. Toxicological information

Ingestion : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ethyl acetate	Acute EC50 2500000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 750000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 154000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 212500 µg/l Fresh water	Fish - Heteropneustes fossilis	96 hours
	Chronic NOEC 2400 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 75.6 mg/l Fresh water	Fish - Pimephales promelas - Embryo	32 days
propan-2-ol	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200000 µg/l Fresh water	Fish - Rasbora heteromorpha	96 hours

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethyl acetate	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
ethyl acetate propan-2-ol	0.73 0.05	- -	low low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	UN1210	UN1210	UN1210	UN1210
UN proper shipping name	Printing ink related material	PRINTING INK RELATED MATERIAL	PRINTING INK RELATED MATERIAL	Printing ink related material
Transport hazard class(es)	3	3	3	3
Packing group	II	II	II	II
Environmental hazards	No.	No.	No.	No.
Additional information	**Reportable quantity** 7168.5 lbs / 3254.5 kg [852.08 gal / 3225.5 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable	**Explosive Limit and Limited Quantity Index** 5 **Passenger Carrying Road or Rail Index** 5	**Emergency schedules (EmS)** F-E, S-D **Special provisions** 163	**Passenger and Cargo Aircraft** Quantity limitation: 5 L Packaging instructions: 353 **Cargo Aircraft Only** Quantity limitation: 60 L

Section 14. Transport information

	quantity) transportation requirements. **Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: 5 L **Cargo aircraft** Quantity limitation: 60 L **Special provisions** 149, IB2, T4, TP1, TP8	**Special provisions** 59		Packaging instructions: 364 **Limited Quantities - Passenger Aircraft** Quantity limitation: 1 L Packaging instructions: Y341 **Special provisions** A3, A72

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations :

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	propan-2-ol	67-63-0	5.25
Supplier notification	propan-2-ol	67-63-0	5.25

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Section 16. Other information

History

Date of printing	:	7/28/2015.
Date of issue/Date of revision	:	6/8/2015.
Date of previous issue	:	3/18/2015.
Version	:	1.01
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Flint Group has prepared this Safety Data Sheet ("SDS") in compliance with 29 CFR 1910.1200, understands that its customers may use this SDS to comply with that section, and believes that the data set forth herein are accurate as of the date hereof; however, this SDS shall not constitute a warranty with respect thereto.

SAFETY DATA SHEET

HYDRITE BLEND 5449
Product ID: BL544901
Revised: 11-12-2013
Replaces: 07-09-2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	HYDRITE BLEND 5449
Synonyms:	R13859A
CAS Number:	MIXTURE
Recommended Use:	No data available.
Restrictions on Use:	No data available.

Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARDS IDENTIFICATION

GHS Classification: Flammable Liquid Category 2
Serious Eye Damage/Eye Irritation Category 2A
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

Signal Word: Danger

Hazard Statements:
Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness. Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Precautionary Statements:

Prevention:
Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust, gas, mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear gloves, eye and face protection and protective clothing.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor if you feel unwell.

	If eye irritation persists: Get medical advice or attention.
	In case of fire: Use appropriate extinguishing media - See Section 5 on SDS.
Storage:	Store in a well-ventilated place. Keep container tightly closed.
	Store in a well-ventilated place. Keep cool.
	Store in a secure manner.
Disposal:	Dispose of in accordance with local, regional and international regulations.
Inhalation Vapor:	80.0 %
Inhalation Dust/Mist:	80.0 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% by Wt.
N-Propyl Acetate	109-60-4	< 90 %
Isopropyl Alcohol	67-63-0	< 30 %

4. FIRST-AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do. In case of irritation from airborne exposure, move to fresh air. Get medical attention, if symptoms persist.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. Discard footwear which cannot be decontaminated. Destroy contaminated leather clothing.

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

Ingestion: If swallowed, call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Note to Physicians:
Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants and antitussives may be of help. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. Urine acetone test may be helpful in diagnosis. Hemodialysis should be considered in severe intoxication.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Water fog or fine spray. Dry chemical. Carbon dioxide. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. DO NOT USE: Direct water stream. Water may be ineffective but should be used to cool fire-exposed structures and vessels.

Fire Fighting Methods: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. Do not use direct water stream. May spread fire. Keep out of low areas where gases (fumes) can accumulate. Move containers from fire area if possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source.

Fire and Explosion Hazards: FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). PROCESS HAZARD: Sudden release of hot organic chemical

vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Oxidizing chemicals may accelerate the burning rate in a fire situation. Flammable concentrations of vapor can accumulate at temperatures above flash point. Prevent buildup of vapors or gases to explosive concentrations.

Hazardous Combustion Products: Carbon dioxide. Carbon monoxide. Incompletely burned carbon compounds. Smoke. Fumes.

6. ACCIDENTAL RELEASE MEASURES

Spill Clean-Up Procedures: FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Stop the flow of material, if this is without risk. If fire potential exists, blanket spill with alcohol-type aqueous film-forming foam or use water spray to disperse vapors. Keep upwind of leak or spill. Keep out of low areas. Ground and bond all containers and handling equipment. Use non-sparking tools and equipment. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. Place in non-leaking containers for immediate disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. CAUTION: Spilled material may be slippery.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Always open containers slowly to allow any excess pressure to vent. Never use air pressure for transferring product. Take precautionary measures against static discharges. Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazards of static accumulation. Use non-sparking tools and equipment.

Storage: FLAMMABLE LIQUID. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. All electrical equipment in areas where this material is stored or handled should be installed in accordance with applicable regulatory requirements and the National Electrical Code. Store in accordance with local/national regulations. Peroxides may form upon prolonged storage. Exposure to light, heat or air significantly increases peroxide formation. If evaporated to a residue, the mixture of peroxides residue and material vapor may explose when exposed to heat or shock.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
N-Propyl Acetate	200 ppm TWA; 840 mg/m3 TWA
Isopropyl Alcohol	400 ppm TWA; 980 mg/m3 TWA

ACGIH Exposure Guidelines:

Component	Limits
N-Propyl Acetate	250 ppm STEL; 200 ppm TWA
Isopropyl Alcohol	400 ppm STEL; 200 ppm TWA

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Process enclosures or other engineering controls

may be needed to maintain airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Eye/Face Protection: Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Wear a full-face respirator, if needed.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant. Chlorinated polyethylene. Nitrile/butadiene rubber. Polyethylene. Ethyl vinyl alcohol laminate. Polyvinyl chloride.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved air-purifying respirator with: Organic vapor cartridge. NIOSH-Approved Supplied Air Respirator (SAR). NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Rubber boots. Impervious clothing. Protective clothing. Launder contaminated clothing and clean protective equipment before reuse.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Colorless.
Odor: Acetate odor.
Odor Threshold: N.D.
pH: N.A.
Freezing Point (deg. F): N.D.
Melting Point (deg. F): N.D.
Initial Boiling Point and Boiling Range: > 180 °F
Flash Point: 46 °F
Flash Point Method: CCCFP. (ASTM D 6450)
Evaporation Rate (nBuAc = 1): N.D.
Flammability (solid. Gas): N.D.
Lower Explosion Limit: N.A.
Upper Explosion Limit: N.A.
Vapor Pressure (mm Hg): N.D.
Vapor Density (air=1): N.D.
Specific Gravity or Relative Density: 0.8596 @ 25 Deg. C
Solubility in Water: Appreciable
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): N.D.
VOC (wt%): N.D.
VOC (lbs/gal): N.D.
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity:

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Under normal storage conditions peroxides may accumulate and explode when subjected to heat or shock. Distillation or evaporation increases peroxide formation and increases the explosion hazard.

Conditions to Avoid: Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid other ignition sources. Exposure to elevated temperatures can cause product to decompose. Avoid exposure to light. Avoid contact with air. Do not allow to evaporate to near dryness. Do not store or handle in aluminum equipment at temperatures above 122 F.

Incompatible Materials: Strong oxidizing agents. Acids. Halogenated compounds. Alkalies. Amines. Halogens. Chlorine. Isocyanates. Chlorinated compounds. Aldehydes. Alkanolamines. Ethylene oxide. Aluminum. Oleum. Chromium trioxide. Moisture. Acetaldehyde. Ketones. Acid anhydrides. Permanganates. Oxygen. Hydrogen peroxide. Potassium tert-butoxide. Iron salts. Carbony dichloride (phosgene). Trinitromethane. Barium perchlorate. Dioxygenyl tetrafluoroborate. Nitroform. Perchloric acid. Hypochlorous acid. Sulfuric acid. Urea formaldehyde. Hexamethylene diisocyanate. Caustics. Halogenated organics. Aluminum isoproproxide + crotonaldehyde + heat. Sodium dichromate + sulfuric acid. Hydrogen + palladium. Hydrogen peroxide-sulfuric acid combination. May attack some forms of plastics, rubbers, and coatings.

Hazardous Decomposition Products: Carbon dioxide. Carbon monoxide. Irritating and/or toxic gases.

11. TOXICOLOGICAL INFORMATION

Component	Oral LD50	Dermal LD50	Inhalation LC50
N-Propyl Acetate	Rat: 9370 mg/kg	Rabbit: > 20 ml/kg	No Data
Isopropyl Alcohol	Rat: 4396 mg/kg	Rabbit: 12,800 mg/kg	8H Rat: 16,000.0 ppm

Routes of Exposure: Eyes. Skin. Inhalation. Ingestion. Absorption.

Eye Contact: Causes moderate to severe irritation. Liquid or vapor may cause: discomfort. pain. burning sensation. redness. watering. change of vision. corneal inflammation. slight temporary corneal injury.

Skin Contact: May cause mild irritation. Prolonged contact may cause: severe irritation. redness. discomfort. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: May cause moderate irritation. May irritate: nose. throat. respiratory tract. May cause: coughing. nasal discomfort and discharge. chest pain. difficulty breathing. hoarseness. Inhalation overexposure may lead to central nervous system depression producing effects such as: anesthetic effects. narcotic effects. dizziness. drowsiness. headache. nausea. unconsciousness. death. Vapors or mists may irritate: Excessive exposure may cause: central nervous system effects. confusion. hypotension. hypothermia. circulatory failure. respiratory arrest. Prolonged excessive exposure may cause adverse effects. Observation in animals include middle ear lining damage upon exposure to vapors of isopropanol. However, the relevance of this to humans is unknown.

Ingestion: May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. central nervous system depression. headache. mental sluggishness. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury. gastrointestinal irritation. cramps. abdominal pain. excitement. dizziness.

Medical Conditions Aggravated by Exposure to Product: Eye disorders. Central nervous system disorders. Skin disorders. Respiratory system disorders. Persons also exposed to acetic acid or propanol might be more sensitive, as these are metabolites of propyl acetate. Liver disorders. Kidney disorders. Impaired pulmonary function.

Other: Avoid simultaneous exposure to Isopropyl Alcohol and haloalkanes, such as Chloroform, Trichloroethane and Carbon Tetrachloride. Coexposure greatly increases the liver and kidney toxic effects of these haloalkanes, leading to hepatitis and kidney failure. Liver damage may be evidenced by loss of appetite, jaundice and pain in the upper abdomen on the right side. Repeated Dose Toxicity: In animals, effects have been reported on the following organs: Kidney. Liver. Kidney effects have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Observations in animals include: Lethargy. Isopropyl alcohol's lethal dose for humans is estimated at 100 ml.

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D001
Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Do NOT dump into any sewers, on the ground, or into any body of water.

14. TRANSPORTATION INFORMATION

DOT (Department of Transportation):

Identification Number:	UN1993
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (CONTAINS ISOPROPYL ALCOHOL, N-PROPYL ACETATE)
Hazard Class:	3
Packing Group:	II
Label Required:	FLAMMABLE

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	Yes	Yes	No	No

Regulated Components: Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Isopropyl Alcohol	67-63-0	No	No	No	No	No	No

***Prop 65 - May Contain the Following Trace Components**
No data available.

16. OTHER INFORMATION

Hazard Rating System
Health: 2*
Flammability: 3
Reactivity: 0
* = Chronic Health Hazard

NFPA Rating System
Health: 1
Flammability: 3
Reactivity: 0
Special Hazard: None

MSDS Abbreviations

N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

MSDS Prepared by: CSH

Reason for Revision: New format. Changes made throughout the MSDS.

Revised: 11-12-2013
Replaces: 07-09-2012

The data in this Material Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

SAFETY DATA SHEET

HYSOL 2240
Product ID: HS224000
Revised: 01-17-2014
Replaces: 07-13-2009

1. IDENTIFICATION

Product Name:	HYSOL 2240
Synonyms:	N.A.
CAS Number:	MIXTURE
Recommended Use:	No data available.
Restrictions on Use:	No data available.

Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION

Signal Word: Danger

GHS Classification:
Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Precautionary Statements:

Prevention:
Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust, gas, mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear gloves, eye and face protection and protective clothing.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER or doctor if you feel unwell.
Specific treatment (see First Aid on SDS or on this label).
If skin irritation occurs: Get medical advice or attention.
If eye irritation persists: Get medical advice or attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use appropriate extinguishing media - See Section 5 on SDS.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store in a secure manner.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: May cause damage to the kidneys, liver, blood, and may cause birth defects and other reproductive harm. May be harmful or fatal if swallowed and enters airways. Potential peroxide former.

Percentage of Components with Unknown Acute Toxicity:
Oral: 85.0 %
Dermal: 85.0 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% by Wt.
Ethyl Alcohol	64-17-5	< 90 %
Isopropyl Alcohol	67-63-0	< 20 %
N-Propyl Acetate	109-60-4	< 5 %

4. FIRST-AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. Do not apply oils or ointments unless ordered by the physician.

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. Keep warm and quiet.

Ingestion: If swallowed, call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Most Important Symptoms/Effects:

Eye Contact: Causes moderate to severe irritation. May cause: stinging. burning. tearing. redness. light sensitivity. conjunctivitis. corneal damage. Vapors are also irritating.

Skin Contact: Causes mild to moderate irritation. Contact may cause: drying. redness. stinging. pain. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

Skin Absorption: May be harmful if absorbed through skin.

Inhalation: May cause moderate irritation. Vapors may irritate: nose. respiratory tract. eyes. Vapors may cause: central nervous system depression. Symptoms may include: burning sensation. headache. dizziness. tremors. nausea. vomiting. drowsiness. faintness. hypotension. hypothermia. circulatory failure. respiratory arrest. death.

Ingestion: May cause moderate irritation. May be harmful or fatal if swallowed. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. central nervous system depression. inebriation. anesthesia. coma. respiratory failure. kidney damage. death in significant exposures. Symptoms may include: headache. tremors.

fatigue. hallucinations. distorted perceptions. convulsions. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Water fog. Dry chemical. Carbon dioxide. Alcohol foam. Water spray. Water may be ineffective but should be used to cool fire-exposed structures and vessels. DO NOT USE: Direct water stream.

Fire Fighting Methods: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. If container is not properly cooled, it can rupture in the heat of a fire. Do not use direct water stream. May spread fire. Run-off from fire control may cause pollution.

Fire and Explosion Hazards: FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Alcohol flames may be difficult to see because they are virtually colorless. Vaporizes easily at normal temperatures. Prevent buildup of vapor to avoid explosive concentrations. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame should be cooled with large quantities of water as needed to prevent weakening of container structure. May form explosive peroxides. Material may accumulate a static charge which could act as an ignition source.

Hazardous Combustion Products: Carbon monoxide. Carbon dioxide. Incompletely burned carbon compounds. Smoke. Fumes.

6. ACCIDENTAL RELEASE MEASURES

Spill Clean-Up Procedures: FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Shut off source of leak if safe to do so. Use water spray to control vapor. A vapor suppressing foam may be used to reduce vapors. Use non-sparking tools and equipment. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. DO NOT use sawdust or other cellulose-type material. Place in non-leaking containers for immediate disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. Prevent entry into basements, low areas, or confined areas. For large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. CAUTION: Spilled material may be slippery.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Take precautionary measures against static discharges. Use non-sparking tools and equipment. Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazards of static accumulation. Ethyl Alcohol is listed on the EPA/TSCA inventory of chemical substances. The Bureau of Alcohol, Tobacco and Firearms has issued regulations governing the production, procurement, and use of Ethyl Alcohol. All users must comply with these regulations.

Storage: FLAMMABLE LIQUID. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Protect against physical damage. Outside or detached storage is preferred. Refer to local fire codes for storage requirements and allowable limits. Peroxides may form upon prolonged storage. Exposure to light, heat or air significantly increases peroxide formation. If evaporated to a residue, the mixture of peroxides residue and material vapor may explose when exposed to heat or shock. If peroxide formation is suspected, do not open or move container. Periodically test for peroxide formation on long-term storage. See Section 10 for incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
Ethyl Alcohol	1000 ppm TWA; 1900 mg/m3 TWA
Isopropyl Alcohol	400 ppm TWA; 980 mg/m3 TWA
N-Propyl Acetate	200 ppm TWA; 840 mg/m3 TWA

ACGIH Exposure Guidelines:

Component	Limits
Ethyl Alcohol	1000 ppm STEL
Isopropyl Alcohol	400 ppm STEL; 200 ppm TWA
N-Propyl Acetate	250 ppm STEL; 200 ppm TWA

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Eye/Face Protection: Wear chemical safety goggles while handling this product. Do not wear contact lenses. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Wear a full-face respirator, if needed.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Impervious. Chemical-resistant.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved respirator. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Chemical safety shoes. Rubber boots. Impervious clothing. Protective clothing. Launder contaminated clothing and clean protective equipment before reuse.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Colorless.
Odor: Alcohol odor.
Odor Threshold: N.D.
pH: N.A.
Freezing Point (deg. F): < - 127

Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: ~ 165 - 215 °F
Flash Point: 54 °F
Flash Point Method: TCC.
Evaporation Rate (nBuAc = 1): >1.2
Flammability (solid, gas): N.D.
Lower Explosion Limit: ~2-4%
Upper Explosion Limit: ~20%
Vapor Pressure (mm Hg): ~32-50 @20C
Vapor Density (air=1): ~1.6-2.1
Specific Gravity or Relative Density: 0.794 @25C
Solubility in Water: Complete
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: ~ 752 Deg. F.
Decomposition Temperature: N.D.
Viscosity: 200 @ 25C
% Volatile (wt%): 100%
VOC (wt%): 100%
VOC (lbs/gal): 6.61
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Under normal storage conditions peroxides may accumulate and explode when subjected to heat or shock. Distillation or evaporation increases peroxide formation and increases the explosion hazard.

Conditions to Avoid: Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid other ignition sources. Avoid static discharges. Avoid exposure to light. Avoid contact with air. Do not allow to evaporate to near dryness.

Incompatible Materials: Oxidizing agents. Strong inorganic acids. Alkali metals. Acids. Alkalies. Amines. Halogens. Chlorine. Isocyanates. Chlorinated compounds. Aldehydes. Alkanolamines. Ethylene oxide. Aluminum. Oleum. Chromium trioxide. Moisture. Acetaldehyde. Ketones. Acid anhydrides. Permanganates. Oxygen. Hydrogen peroxide. Potassium tert-butoxide. Iron salts. Carbony dichloride (phosgene). Trinitromethane. Barium perchlorate. Dioxygenyl tetrafluoroborate. Nitroform. Perchloric acid. Hypochlorous acid. Sulfuric acid. Urea formaldehyde. Hexamethylene diisocyanate. Caustics. Halogenated organics. Aluminum isoproproxide + crotonaldehyde + heat. Sodium dichromate + sulfuric acid. Hydrogen + palladium. Hydrogen peroxide-sulfuric acid combination. May attack some forms of plastics, rubbers, and coatings.

Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. Irritating and/or toxic gases.

11. TOXICOLOGICAL INFORMATION

Component	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl Alcohol	No Data	No Data	4H Rat: 124.7 mg/L
Isopropyl Alcohol	Rat: 4396 mg/kg	Rabbit: 12,800 mg/kg	8H Rat: 16,000.0 ppm
N-Propyl Acetate	Rat: 9370 mg/kg	Rabbit: > 20 ml/kg	No Data

Routes of Exposure: Eyes. Skin. Inhalation. Ingestion. Absorption.

Eye Contact: Causes moderate to severe irritation. May cause: stinging. burning. tearing. redness. light sensitivity. conjunctivitis. corneal damage. Vapors are also irritating.

Skin Contact: Causes mild to moderate irritation. Contact may cause: drying. redness. stinging. pain. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

Skin Absorption: May be harmful if absorbed through skin.

Inhalation: May cause moderate irritation. Vapors may irritate: nose. respiratory tract. eyes. Vapors may cause: central nervous system depression. Symptoms may include: burning sensation. headache. dizziness. tremors. nausea. vomiting. drowsiness. faintness. hypotension. hypothermia. circulatory failure. respiratory arrest. death.

Ingestion: May cause moderate irritation. May be harmful or fatal if swallowed. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. central nervous system depression. inebriation. anesthesia. coma. respiratory failure. kidney damage. death in significant exposures. Symptoms may include: headache. tremors. fatigue. hallucinations. distorted perceptions. convulsions. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Medical Conditions Aggravated by Exposure to Product: Liver disorders. Eye disorders. Skin disorders. Central nervous system disorders. Impaired respiratory function. Kidney disorders. Respiratory system disorders. Persons also exposed to acetic acid or propanol might be more sensitive, as these are metabolites of propyl acetate.

Other: Ethyl Alcohol:
Chronic: May cause reproductive and fetal effects. Laboratory experiements have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure my cause liver, kidney, and heart damage. Long term exposure can cause loss of appetite, weight loss, nervousness, memory loss, and mental retardation. Avoid simultaneous exposure to Isopropyl Alcohol and haloalkanes, such as Chloroform, Trichloroethane and Carbon Tetrachloride. Coexposure greatly increases the liver and kidney toxic effects of these haloalkanes, leading to hepatitis and kidney failure. Liver damage may be evidenced by loss of appetite, jaundice and pain in the upper abdomen on the right side.

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D001
Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do NOT dump into any sewers, on the ground, or into any body of water.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number:	UN1993
Proper Shipping Name:	Flammable Liquid, N.O.S. (Contains Ethyl Alcohol, Isopropyl Alcohol)
Hazard Class:	3
Packing Group:	II
Label Required:	FLAMMABLE

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	Yes	Yes	No	No

Regulated Components:

Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Ethyl Alcohol	64-17-5	No	No	No	No	No	Yes*
Isopropyl Alcohol	67-63-0	No	No	No	No	No	No

Note: *Ethyl alcohol in alcoholic beverages is listed.

16. OTHER INFORMATION

Hazard Rating System
Health: 2*
Flammability: 3
Reactivity: 0
* = Chronic Health Hazard

NFPA Rating System
Health: 2
Flammability: 3
Reactivity: 0
Special Hazard: None

MSDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

MSDS Prepared by: JB

Reason for Revision: Changes made throughout the MSDS. New format.

Revised: 01-17-2014
Replaces: 07-13-2009

The data in this Material Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

SAFETY DATA SHEET

HYSOL 4823
Product ID: HS482300
Revised: 12-23-2015
Replaces: 10-02-2008

1. IDENTIFICATION

Product Identifier:	HYSOL 4823
Other Identifiers:	C98217A/R26950
CAS Number:	MIXTURE
Recommended Use:	For use as an ink thinner & clean-up.
Restrictions on Use:	No data available.

Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION

GHS Classification(s):
Aspiration Hazard Category 1
Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

GHS Label Elements:

GHS Hazard Symbols:

Signal Word: Danger

Hazard Statements:
Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure (by inhalation).

Precautionary Statements:

Prevention:
Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF SWALLOWED: Immediately call a POISON CENTER or doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor if you feel unwell.
Specific treatment (see First Aid on SDS or on this label).
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice or attention.
If eye irritation persists: Get medical advice or attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use carbon dioxide, dry chemical, foam, water fog to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store in a secure manner.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: Drinking of alcoholic beverages is casually related to to cancers of the esophagus, larynx, oral cavity, pharynx and liver.

Percentage of Components with Unknown Acute Toxicity:
Dermal: 38.3 %
Inhalation Vapor: 40.2 %
Inhalation Dust/Mist: 40.2 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

Chemical or Common Name/Synonyms	CAS Number	% by Wt.
N-Propyl Acetate	109-60-4	< 50 %
Ethyl Alcohol	64-17-5	< 50 %
Naphtha, petroleum, hydrotreated light	64742-49-0	< 30 %
Isopropyl Alcohol	67-63-0	< 5 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do.

Skin Contact: If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. Discard footwear which cannot be decontaminated. Destroy contaminated leather clothing.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. Keep warm and quiet.

Ingestion: If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Do not leave victim unattended.

Most Important Symptoms/Effects, Acute and Delayed:

Eye Contact: Causes moderate to severe irritation. Liquid or vapor may cause: discomfort. pain. burning sensation. redness. watering. change of vision. corneal inflammation. stinging. burning. tearing. light sensitivity. conjunctivitis. corneal damage. irritation. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism. Liquid or mist may cause:

Skin Contact: May cause moderate irritation. Prolonged contact may cause: severe irritation. redness. discomfort. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis. Prolonged or repeated exposure may cause: cracking. itching. stinging. pain. sensitization.

Skin Absorption: May be harmful if absorbed through skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: May cause moderate irritation. May irritate: nose. throat. respiratory tract. May cause: coughing. nasal discomfort and discharge. chest pain. difficulty breathing. hoarseness. Inhalation overexposure may lead to central nervous system depression producing effects such as: anesthetic effects. narcotic effects. dizziness. drowsiness. headache. nausea. unconsciousness. confusion. hypotension. hypothermia. circulatory failure. respiratory arrest. death.

Ingestion: May cause mild irritation. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. central nervous system depression. headache. mental sluggishness. inebriation. anesthesia. narcosis. death in significant exposures. tremors. hallucinations. distorted perceptions. convulsions. staggering gait. delirium. excitement. kidney damage.

Indication of Immediate Medical Attention and Special Treatment Needed: May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants and antitussives may be of help. Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required. If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: DO NOT USE: Direct water stream. Water may be ineffective but should be used to cool fire-exposed structures and vessels. Water fog. Dry chemical. Carbon dioxide. Alcohol foam.

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: HIGHLY FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Oxidizing chemicals may accelerate the burning rate in a fire situation. Flammable concentrations of vapor can accumulate at temperatures above flash point. Prevent buildup of vapors or gases to explosive concentrations. Alcohol flames may be difficult to see because they are virtually colorless.

Hazardous Combustion Products: Carbon dioxide. Carbon monoxide. Smoke. Fumes. Unburned hydrocarbons. Incompletely burned carbon compounds.

Special Protective Equipment and Precautions for Fire-Fighters: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. Do not use direct water stream. May spread fire. Keep out of low areas where gases (fumes)

can accumulate. Move containers from fire area if possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source. If container is not properly cooled, it can rupture in the heat of a fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: HIGHLY FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

Methods and Materials for Containment and Clean Up: Stop the flow of material, if this is without risk. If fire potential exists, blanket spill with alcohol-type aqueous film-forming foam or use water spray to disperse vapors. Keep upwind of leak or spill. Keep out of low areas. Ground and bond all containers and handling equipment. Use non-sparking tools and equipment. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. Place in non-leaking containers for immediate disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. CAUTION: Spilled material may be slippery.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Always open containers slowly to allow any excess pressure to vent. Never use air pressure for transferring product. Take precautionary measures against static discharges. Use appropriate grounding and bonding practices. Use non-sparking tools and equipment.

Conditions for Safe Storage, Including any Incompatibilities: HIGHLY FLAMMABLE LIQUID. Store in a cool, well-ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. All electrical equipment in areas where this material is stored or handled should be installed in accordance with applicable regulatory requirements and the National Electrical Code. Protect against physical damage. Outside or detached storage is preferred.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
N-Propyl Acetate	200 ppm TWA; 840 mg/m3 TWA
Ethyl Alcohol	1000 ppm TWA; 1900 mg/m3 TWA
Isopropyl Alcohol	400 ppm TWA; 980 mg/m3 TWA

ACGIH Exposure Guidelines:

Component	Limits
N-Propyl Acetate	200 ppm TWA; 250 ppm STEL
Ethyl Alcohol	1000 ppm STEL
Isopropyl Alcohol	200 ppm TWA; 400 ppm STEL

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Individual Protection Measures:

Eye/Face Protection: Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Wear a full-face respirator, if needed.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved air-purifying respirator with: Organic vapor cartridge. NIOSH-Approved Supplied Air Respirator (SAR). NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Rubber boots. Impervious clothing. Protective clothing. Launder contaminated clothing and clean protective equipment before reuse. Chemical safety shoes. Appropriate fire-retardant garments.

General Hygiene Conditions: Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use. Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Colorless.
Odor: Acetate odor.
Odor Threshold: N.D.
pH: N.A.
Freezing Point (deg. F): N.D.
Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: ~ 173 - 304 °F
Flash Point: < 40 °F
Flash Point Method: Calculated.
Evaporation Rate (nBuAc = 1): N.D.
Flammability (solid, gas): N.D.
Lower Explosion Limit: ~0.9
Upper Explosion Limit: ~19
Vapor Pressure (mm Hg): > 5 @ 68 F
Vapor Density (air=1): ~1.6-4.0
Specific Gravity or Relative Density: 0.817 @ 60F
Solubility in Water: Appreciable
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): 100
VOC (wt%): 100
VOC (lbs/gal): 6.81
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Under normal storage conditions peroxides may accumulate and explode when subjected to heat or shock. Distillation or evaporation increases peroxide formation and increases the explosion hazard.

Conditions to Avoid: Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid other ignition sources. Exposure to elevated temperatures can cause product to decompose. Do not store or handle in aluminum equipment at temperatures above 122 F.

Incompatible Materials: Strong oxidizing agents. Acids. Halogenated compounds. Oxidizing agents. Strong inorganic acids. Alkali metals. Strong acids. Strong alkalies. May attack some forms of plastics, rubbers, and coatings.

Hazardous Decomposition Products: Carbon dioxide. Carbon monoxide. Smoke. Fumes. Unburned hydrocarbons. Irritating and/or toxic gases.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes. Skin. Inhalation. Ingestion. Absorption.

Symptoms/Effects: Acute, Delayed and Chronic:

Eye Contact: Causes moderate to severe irritation. Liquid or vapor may cause: discomfort. pain. burning sensation. redness. watering. change of vision. corneal inflammation. stinging. burning. tearing. light sensitivity. conjunctivitis. corneal damage. irritation. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism. Liquid or mist may cause:

Skin Contact: May cause moderate irritation. Prolonged contact may cause: severe irritation. redness. discomfort. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis. Prolonged or repeated exposure may cause: cracking. itching. stinging. pain. sensitization.

Skin Absorption: May be harmful if absorbed through skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: May cause moderate irritation. May irritate: nose. throat. respiratory tract. May cause: coughing. nasal discomfort and discharge. chest pain. difficulty breathing. hoarseness. Inhalation overexposure may lead to central nervous system depression producing effects such as: anesthetic effects. narcotic effects. dizziness. drowsiness. headache. nausea. unconsciousness. confusion. hypotension. hypothermia. circulatory failure. respiratory arrest. death.

Ingestion: May cause mild irritation. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. central nervous system depression. headache. mental sluggishness. inebriation. anesthesia. narcosis. death in significant exposures. tremors. hallucinations. distorted perceptions. convulsions. staggering gait. delirium. excitement. kidney damage.

Numerical Measures of Toxicity:

Component	Oral LD50	Dermal LD50	Inhalation LC50
N-Propyl Acetate	Rat: 9370 mg/kg	Rabbit: > 20 ml/kg	No Data
Ethyl Alcohol	Rat: 7060 mg/kg	No Data	4H Rat: 124.7 mg/L
Naphtha, petroleum, hydrotreated light	Rat: > 5000 mg/kg	Rabbit: > 3160 mg/kg	4H Rat: 73680 ppm
Isopropyl Alcohol	Rat: 4396 mg/kg	Rabbit: 12800 mg/kg	8H Rat: 16000 ppm

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Medical Conditions Aggravated by Exposure to Product: Eye disorders. Central nervous system disorders. Skin disorders. Respiratory system disorders. Persons also exposed to acetic acid or propanol might be more sensitive, as these are metabolites of propyl acetate. Liver disorders. Impaired respiratory function. Kidney disorders.

Other: Repeated overexposure may cause liver damage. Ethyl Alcohol:
Chronic: May cause reproductive and fetal effects. Laboratory experiements have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure my cause liver, kidney, and heart damage. Long term exposure can cause loss of appetite, weight loss, nervousness, memory loss, and mental retardation. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painters' Syndrome). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D001
Note: An additional EPA Hazardous Waste Number may include: D018.

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Do NOT dump into any sewers, on the ground, or into any body of water. For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: incinerator or other thermal destruction device. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number:	UN1993
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHYL ALCOHOL, N PROPYL ACETATE)
Hazard Class:	3
Packing Group:	II
Label Required:	FLAMMABLE
Reportable Quantity (RQ):	100# (Xylene-mixed isomers)

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	Yes	Yes	No	No

Regulated Components: Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Ethyl Alcohol	64-17-5	No	No	No	No	No	Yes*

***Prop 65 - May Contain the Following Trace Components:**
Ethylbenzene (<0.1%)
Toluene (<0.1%)
Benzene (<0.005%)
Naphthalene (<0.002%)

Note: *Ethyl alcohol in alcoholic beverages is listed.

16. OTHER INFORMATION

Hazard Rating System
Health: 2*
Flammability: 3
Reactivity: 0
* = Chronic Health Hazard

NFPA Rating System
Health: 2
Flammability: 3
Reactivity: 0
Special Hazard: None

SDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

SDS Prepared by: JAK

Reason for Revision: New format. Changes made throughout the SDS.

Revised: 12-23-2015
Replaces: 10-02-2008

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

SAFETY DATA SHEET

HYSOL BLEND 5375
Product ID: HS537500
Revised: 12-30-2015
Replaces: 12-15-2011

1. IDENTIFICATION

Product Identifier:	HYSOL BLEND 5375
Other Identifiers:	L0002459/R27054
CAS Number:	MIXTURE
Recommended Use:	For use as a solvent.
Restrictions on Use:	No data available.

Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION

GHS Classification(s):
Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

GHS Label Elements:

GHS Hazard Symbols:

Signal Word: Danger

Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Precautionary Statements:

Prevention:
Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust, gas, mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor if you feel unwell.

Specific treatment (see First Aid on SDS or on this label).
If skin irritation occurs: Get medical advice or attention.
If eye irritation persists: Get medical advice or attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use alcohol foam, carbon dioxide, dry chemical, water fog to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store in a secure manner.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: May be harmful or fatal if swallowed and enters airways. May cause damage to the kidneys, liver, blood, and may cause birth defects and other reproductive harm. Drinking of alcoholic beverages is casually related to to cancers of the esophagus, larynx, oral cavity, pharynx and liver.

Percentage of Components with Unknown Acute Toxicity:
Dermal: 20 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

Chemical or Common Name/Synonyms	CAS Number	% by Wt.
Isopropyl Acetate	108-21-4	< 90 %
Ethyl Alcohol	64-17-5	< 30 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do.

Skin Contact: If on skin: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Wash with soap and water. Discard footwear which cannot be decontaminated.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. Keep warm and quiet.

Ingestion: If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Most Important Symptoms/Effects, Acute and Delayed:

Eye Contact: Causes moderate to severe irritation. May cause: stinging. discomfort. pain. burning sensation. tearing. change of vision. Vapors are also irritating. Corneal injury may occur. These effects may require several days to subside. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism.

Skin Contact: Causes mild to moderate irritation. Contact may cause: drying. redness. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

Skin Absorption: May be harmful if absorbed through skin.

Inhalation: Causes moderate irritation. May cause: nasal discomfort and discharge. hoarseness. coughing. chest pain. difficulty breathing. Inhalation overexposure may lead to central nervous system depression producing effects such as: nausea. headache. dizziness. drowsiness. weakness. unconsciousness. Vapors may irritate: nose. respiratory tract. eyes.

Ingestion: May cause mild irritation. May cause: abdominal discomfort. nausea. vomiting. central nervous system depression. headache. mental sluggishness. gastrointestinal irritation. diarrhea. inebriation. anesthesia. narcosis. coma. respiratory failure. death in significant exposures. Symptoms may include: tremors. fatigue. hallucinations. distorted perceptions. convulsions.

Indication of Immediate Medical Attention and Special Treatment Needed: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Water may be ineffective but should be used to cool fire-exposed structures and vessels. Water fog. Dry chemical. Carbon dioxide. Alcohol foam.

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: HIGHLY FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. This material may produce a floating fire hazard. Alcohol flames may be difficult to see because they are virtually colorless. Vaporizes easily at normal temperatures. Prevent buildup of vapor to avoid explosive concentrations.

Hazardous Combustion Products: Carbon dioxide. Carbon monoxide.

Special Protective Equipment and Precautions for Fire-Fighters: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. If container is not properly cooled, it can rupture in the heat of a fire. Avoid water accumulation. Product may reignite and burn on the water's surface.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: HIGHLY FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

Methods and Materials for Containment and Clean Up: Use non-sparking tools and equipment. Shut off source of leak if safe to do so. If fire potential exists, blanket spill with alcohol-type aqueous film-forming foam or use water spray to disperse vapors. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. DO NOT use sawdust or other cellulose-type material. Place in non-leaking containers for immediate disposal. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Avoid dust or mist formation. Launder contaminated clothing before reuse. Air-dry contaminated clothing in a well ventilated area before laundering. Always open containers slowly to allow any excess pressure to vent. Ground all equipment and containers before opening to prevent accumulation of static charge. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Avoid splash filling.

Conditions for Safe Storage, Including any Incompatibilities: HIGHLY FLAMMABLE LIQUID. Store in a cool, well-ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Protect against physical damage. Outside or detached storage is preferred. Refer to local fire codes for storage requirements and allowable limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
Isopropyl Acetate	250 ppm TWA; 950 mg/m3 TWA
Ethyl Alcohol	1000 ppm TWA; 1900 mg/m3 TWA

ACGIH Exposure Guidelines:

Component	Limits
Isopropyl Acetate	100 ppm TWA; 200 ppm STEL
Ethyl Alcohol	1000 ppm STEL

Engineering Controls: General room ventilation and local exhaust are required. Use explosion-proof ventilation equipment. Avoid creating dust or mist. Maintain adequate ventilation. Do not use in closed or confined spaces. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Individual Protection Measures:

Eye/Face Protection: Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant. Impervious.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved air-purifying respirator with: Organic vapor cartridge. NIOSH-Approved Supplied Air Respirator (SAR). NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Rubber boots. Protective clothing. Chemical safety shoes. Impervious clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Colorless.

Odor: Acetate odor.
Odor Threshold: N.D.
pH: N.A.
Freezing Point (deg. F): < -73
Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: > 173 °F
Flash Point: 39 °F
Flash Point Method: Calculated.
Evaporation Rate (nBuAc = 1): > 2.0
Flammability (solid, gas): N.D.
Lower Explosion Limit: ~ 1.8%
Upper Explosion Limit: ~ 19%
Vapor Pressure (mm Hg): > 23 @ 20 C
Vapor Density (air=1): > 1.6
Specific Gravity or Relative Density: 0.8591 @ 60 Deg. F
Solubility in Water: Appreciable
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): 100
VOC (wt%): 100
VOC (lbs/gal): 7.15
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Spontaneous polymerization can occur if material is released or mixed with incompatibles, resulting in heat.

Conditions to Avoid: Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid other ignition sources.

Incompatible Materials: Oxidizing agents. Alkali metal hydroxides. Nitric Acid. Sodium hydroxide. Perchloric Acid. Chromium trioxide. Chlorosulfonic acid. Silica gel. Alumina. Strong acids. Amines. Peroxides. Polymerization initiators. Strong inorganic acids. Alkali metals.

Hazardous Decomposition Products: Carbon dioxide. Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes. Ingestion. Inhalation. Skin. Absorption.

Symptoms/Effects: Acute, Delayed and Chronic:

Eye Contact: Causes moderate to severe irritation. May cause: stinging. discomfort. pain. burning sensation. tearing. change of vision. Vapors are also irritating. Corneal injury may occur. These effects may require several days to subside. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism.

Skin Contact: Causes mild to moderate irritation. Contact may cause: drying. redness. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

Skin Absorption: May be harmful if absorbed through skin.

Inhalation: Causes moderate irritation. May cause: nasal discomfort and discharge. hoarseness. coughing. chest pain. difficulty breathing. Inhalation overexposure may lead to central nervous system depression

producing effects such as: nausea. headache. dizziness. drowsiness. weakness. unconsciousness. Vapors may irritate: nose. respiratory tract. eyes.

Ingestion: May cause mild irritation. May cause: abdominal discomfort. nausea. vomiting. central nervous system depression. headache. mental sluggishness. gastrointestinal irritation. diarrhea. inebriation. anesthesia. narcosis. coma. respiratory failure. death in significant exposures. Symptoms may include: tremors. fatigue. hallucinations. distorted perceptions. convulsions.

Numerical Measures of Toxicity:

Component	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl Acetate	Rat: 3000 mg/kg	Rabbit: > 20 ml/kg	8H Rat: 50600 mg/m3
Ethyl Alcohol	Rat: 7060 mg/kg	No Data	4H Rat: 124.7 mg/L

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Medical Conditions Aggravated by Exposure to Product: Respiratory system disorders. Eye disorders. Skin disorders. Central nervous system disorders. Liver disorders. Impaired respiratory function.

Other: Repeated overexposure may cause liver damage. Ethyl Alcohol:
Chronic: May cause reproductive and fetal effects. Laboratory experiements have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure my cause liver, kidney, and heart damage. Long term exposure can cause loss of appetite, weight loss, nervousness, memory loss, and mental retardation.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D001

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number:	UN1993
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (CONTAINS ISOPROPYL ACETATE, ETHYL ALCOHOL)
Hazard Class:	3
Packing Group:	II
Label Required:	FLAMMABLE

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	Yes	Yes	No	No

Regulated Components: Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Ethyl Alcohol	64-17-5	No	No	No	No	No	Yes*

***Prop 65 - May Contain the Following Trace Components:**
No data available.

Note: *Ethyl alcohol in alcoholic beverages is listed.

16. OTHER INFORMATION

Hazard Rating System
Health: 2*
Flammability: 3
Reactivity: 0
* = Chronic Health Hazard

NFPA Rating System
Health: 2
Flammability: 3
Reactivity: 0
Special Hazard: None

SDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

SDS Prepared by: JAK

Reason for Revision: New format. Changes made throughout the SDS.

Revised: 12-30-2015
Replaces: 12-15-2011

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.