SITE SAFETY AND HEALTH PLAN

GROUNDWATER REMEDIATION SYSTEM O & M
CHLORINATED HYDROCARBON AND CHROMIUM CONTAMINATION

Terracon Project No. 58117057

TERRACON

Franklin, Wisconsin

October 1, 2018

Rev: 12/05

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1.0 INTRODUCTION

This Safety and Health Plan (Plan) will govern the activities of Terracon, Inc. (Terracon) and Terracon subcontract personnel engaged in remedial system operation and maintenance (O&M) activities at the N.W. Mauthe Superfund project site located in the Appleton, Outagamie County, Wisconsin. The purpose of this Plan is to prevent adverse health effects from both safety and chemical hazards to which personnel may be exposed during project activities.

Available site history indicates that soils and groundwater at the project sites have been impacted by past releases of chlorinated volatile organic compounds (CVOC) and metals, primarily chromium. Personnel exposure to CVOCs and vapors is considered probable. All field personnel involved with the operation and maintenance of the remedial systems will abide by the health and safety provisions contained in this Plan.

Subcontractors engaged in project activity at this site will comply applicable provisions of the Occupational Safety and Health Act of 1970, the safety and health requirements set forth in Occupational Safety and Health Administration regulation 29 CFR 1910.120, where applicable, and any applicable state, city or local safety codes. Each subcontractor will be responsible for supplying a competent person to oversee the work they perform at this project site. The competent person for each subcontractor will bear primary responsibility for utilizing equipment and work practices necessary to protect the safety of the subcontractor's employees engaged in activities at this project site.

The subcontractor will maintain an orderly and safe work area around drilling/probe/excavation equipment to minimize the potential for accidents. In addition, the subcontractor will provide whatever safety barricades or warning devices are deemed necessary by Terracon to prevent accidents or injury to field personnel and the general public.

Subcontractors engaged on this project site may utilize this site Safety and Health Plan for their employees, or each subcontractor may develop and utilize their own site Safety and Health Plan provided the provisions of the subcontractor's site Safety and Health Plan are at least as stringent as the requirements contained in this Plan. Decisions regarding equivalence of safety and health requirements will be made by Terracon Project Manager and Corporate Safety and Health Manager. Adoption of this Site Safety and Health Plan by subcontract employers shall not relieve any site subcontractor for the responsibility for the health and safety of its employees.

2.0 SAFETY AND HEALTH ADMINISTRATION

The Project Manager is ultimately responsible for seeing that work on this project is performed in accordance with the safety and health provisions contained in this Plan. The designated Site Safety and Health Officer (SSO) will monitor compliance with this Plan during field activities. All field team members engaged in project activities will be required to sign the "Acknowledgment of Instruction" form included with this Plan. The SSO will maintain a copy of this Plan on site for the duration of project activities.

Terracon and subcontractor task leaders will be responsible for:

- Providing subordinate personnel a copy of this Plan, and briefing them on its content.
- Enforcing the applicable provisions of this Plan.
- Inspecting and maintaining equipment in compliance with applicable federal, state or local safety regulations.
- Enforcement of corrective actions.
- Investigation of accidents or injuries.

The following individuals will be responsible for implementation and enforcement of the Plan:

TITLE	NAME	PHONE
Project Manager:	Scott A. Hodgson	414-209-7640
Terracon Safety and Health Manager:	Jim Wright, Director of Safety/Health	913-202-7525
Site Safety and Health Officer:	Scott A. Hodgson	920-791-9206
Terracon Task Leader(s):	_____	_____
	_____	_____
Subcontractor Task Leader:	_____	_____

If hazardous conditions develop during the course of project activity, the SSO will consult the Corporate Safety and Health Manager and coordinate actions required to safeguard site personnel and members of the general public. Additional safety measures will be verbally communicated to all project personnel, recorded in writing and appended to this Plan.

3.0 EMPLOYEE TRAINING REQUIREMENTS

All Terracon personnel participating in this project must have completed 40-hour Hazardous Waste Site Training and at least three days supervised field experience per the requirements

of OSHA 29 CFR 1910.120. In addition, a current 8-hour annual refresher training certificate will be required for all personnel. Training certificates will be maintained by the Corporate Safety and Health Manager in the Terracon Corporate Office.

Prior to the start of project activities, the Project Manager will discuss the contents of this Plan with all Terracon personnel on-site. The proposed scope of work, potential site hazards, air monitoring requirements and action levels for upgrade/downgrade of personal protective equipment will be communicated to all field personnel.

4.0 MEDICAL SURVEILLANCE REQUIREMENTS

All Terracon personnel participating in this project must be enrolled in a health monitoring program in accordance with the provisions of OSHA 29 CFR 1910.120 and 29 CFR 1910.134. Each project participant will be certified by a Doctor of Medicine as fit for respirator and semi-permeable/impermeable protective equipment use. All personnel must have received an environmental physical examination within one year prior to the start of the project. Content of physical examinations will be determined by the consulting physician.

5.0 SITE HISTORY/SCOPE OF SERVICES

The N.W. Mauthe Superfund project site history involves past releases of chlorinated hydrocarbons and metals such as chromium to soils and groundwater. Past remedial investigations indicated soil and groundwater impacted with CVOCs and chromium. Remedial actions were performed including contaminated soil excavation and construction of groundwater remediation/mitigation systems. The project activities governed by this Plan will include operations and maintenance services such as operational parameter measurement, influent and effluent sampling, and groundwater monitoring. The personal protective equipment and direct-reading air monitoring requirements specified herein are designed to prevent personnel exposure to CVOCs and chromium in excess of permissible exposure limits.

6.0 SITE CONTROL

Depending upon site topography, the area within a 30 foot radius of the drill rig or hydraulic probe unit will be considered an exclusion zone. Anyone entering this area must be wearing the appropriate personal protective equipment as described in this plan and must have the authorization of the SSO and/or client representative. If unauthorized personnel attempt to enter a project exclusion zone, the SSO will notify the individuals to leave the area. If unauthorized personnel refuse to leave the area, the SSO will cease project activities and notify the client representative.

No eating smoking or tobacco chewing will be permitted in project exclusion zone.

7.0 PERSONAL PROTECTIVE EQUIPMENT

Hydraulic probing and soil boring activity at this project site may begin in Level D personal protective equipment. Impermeable gloves of nitrile or Silver Shield will be worn during system sampling, soil and groundwater collection, and field screening activities. Goggles or face shield will be worn during system influent/effluent sampling.

Groundwater monitoring wells to be sampled at this project site may contain low level chlorinated hydrocarbon compounds such as 1,1,1-trichloroethane and trichloroethene. Site personnel are advised that volatile organic vapors can collect in groundwater monitoring wells and be displaced into the breathing zone by bailers and sample pumps.

Personnel are advised to approach groundwater monitoring wells from the upwind side to remove the well cap. Extend to remove the well cap keeping the breathing zone as far as possible to the upwind side. Allow the well to vent approximately five minutes prior to bailing. If organic vapors are detected, monitor the well with a photoionization detector. Upgrade to respiratory protection if photoionization detector readings exceed the action level specified below.

8.0 AIR MONITORING REQUIREMENTS AND ACTION LEVELS

The following air monitoring instruments will be used to periodically monitor the breathing zone of site personnel:

- **Photoionization Detector**

The instrument will be calibrated in accordance with the manufacturer's instructions immediately prior to use. NOTE: The ionization potential of some chlorinated solvents is either beyond or at the extreme end of the standard 10.0 or 10.6 eV ultraviolet PID lamp. It is recommended that the ionization potential of the principal known contaminants of concern be evaluated prior to site mobilization. Where required, a higher energy **(11.7 or 11.8 eV)** lamp should be utilized on chlorinated hydrocarbon project sites. The higher energy lamps may typically be rented for the duration of the project.

8.1 Air Monitoring Action Levels

The action levels indicated below will be used to determine personal protective equipment requirements and emergency evacuation from the site:

COMPOUND	MODIFIED LEVEL D	LEVEL C	SITE EVACUATION
Organic Vapors (OVM)	< 10 ppm	10-50 ppm	> 50 ppm

If organic vapors in the breathing zone of site personnel exceed **10 ppm**, personnel will upgrade to full face air purifying respirators equipped with organic vapor cartridges. Personnel will remain in Level C respiratory protection until sustained breathing zone OVM readings remain below 10 ppm. If organic vapor readings exceed 50 ppm, site personnel will evacuate the area and notify the Safety and Health Manager to discuss site conditions, additional monitoring requirements, enhanced respiratory protection and modification of this Plan.

9.0 HAZARD ASSESSMENT

9.1 Physical Hazards

Physical hazards anticipated at the project sites, include:

- Lifting, possibly associated with manhole cover removal;
- Cuts and contusions while working on remediation equipment;
- Muscular injury due to overexertion or improper movement;
- Slip, trip and fall hazards during cold/inclement weather.

Safe work practices shall include the following:

Site personnel engaged in moving or lifting remediation equipment and associated materials will assess all loads prior to lifting. If loads are heavy or awkward, individuals will not attempt to move the items or materials until assistance is obtained or until an appropriate mechanical lifting device, such as a drum dolly is obtained. Site personnel are advised to avoid bending at the waist during lifting tasks. Use the legs, keep the back straight and do not twist while carrying a heavy load. Appropriate footwear/cold weather gear, snow/ice removal and good housekeeping practices around the remedial system sites will be utilized to reduce the potential for slip, trip and fall hazards.

9.2 Electrical Hazards

Electrical hazards anticipated at the project sites, include:

- Overhead powerlines; and
- Energy sources associated with the remediation equipment.

Safe work practices shall include the following:

Lock Out / Tag Out

Prior to opening performing maintenance on remediation equipment, the equipment will be shut down and positively locked out of service using a dedicated, lock out / tag out, key operated padlock. The control panel for the remediation system is located inside the process building. The on/off switch for the equipment is located on this control panel. The site person who will be performing maintenance on the remediation equipment will switch all equipment off and place the dedicated lock out / tag out padlock on the control panel and retain the key. A tag indicating the lock out / tag out person's name and time of lock out will be affixed with the lock. The lock will be removed from the control panel ONLY by the person who initially fixed the lock and ONLY after the person has completed all activities at the remediation equipment.

Power Line Clearance

Equipment to be operated on this project site is not expected to pose a power line contact hazard. Back hoes, cranes, drill rigs, etc. are required to maintain a minimum 10 foot horizontal and vertical power line clearance distance. If operations must be conducted at distances of less than 10 feet from overhead powerlines, the utility will be contacted to de-energize and visibly ground the power line or to "boot" the line and stand by until project activities are completed.

9.3 Chemical Hazards

As indicated groundwater and/or soils at this project site may be impacted by chlorinated solvents such as perchloroethylene, trichloroethylene, methyl chloroform and dichloroethylene. Brief toxicological profiles of various chlorinated solvent compounds are presented below. For additional information regarding chemical and physical hazards of anticipated chlorinated solvent compounds, see the chemical product information sheets attached to this Plan

TRICHLOROETHYLENE
Permissible Exposure Limit
100 ppm OSHA PEL
200 ppm OSHA STEL
50 ppm ACGIH TLV

Trichloroethylene is a clear, colorless volatile liquid with a sweet, chloroform-like odor. Trichloroethylene is a narcotic, an irritant to the skin and mucous membranes, a liver and kidney toxin and is believed by NIOSH to be a potential human carcinogen. Workers exposed to concentrations averaging 10 ppm complained of headache, dizziness and sleepiness. Prolonged inhalation of vapors may result in central nervous system depression, nausea,

narcosis, headache and nausea. Skin contact may cause drying, redness and irritation. Chronic exposure to trichloroethylene vapors may cause kidney and liver damage.

1,1,1-TRICHLOROETHANE
Permissible Exposure Limit
350 ppm OSHA PEL

1,1,1-trichloroethane is a colorless liquid with a chloroform-like odor. Skin contact may irritate the skin and mucous membranes. It is a central nervous system depressant. Excessive absorption through the lungs or gastrointestinal tract produces CNS depression. Mild liver and kidney dysfunction has also been reported.

10.0 SITE COMMUNICATIONS

Communication between personnel engaged in project activities will be via verbal communication or hand signals. Visual contact between members of task teams should be possible throughout the course of project activities. Contact with the SSO will be through direct verbal communication. The SSO will maintain an operable cellular telephone in the soil gas van for the duration of this project. The following hand signals will be used by personnel wherever respiratory protection and/or equipment noise limit verbal communication.

Signal	Meaning
Thumbs Up	OK, all is well
Grab throat with both hands	Can't breathe
Shake head, thumbs down	NO, negative
Point right (when facing equipment operators)	Move/steer left
Point left (when facing equipment operators)	Move/steer right
Grab partner's wrist	Leave area immediately

11.0 DECONTAMINATION

All reusable sampling equipment will be thoroughly cleaned with steam or high pressure wash of hot water and anionic detergent prior to each use. All decontamination fluids will be disposed of as provided in the work plan. Disposable protective clothing will be placed in plastic bags, containerized and left on site. Respirators and boots will be thoroughly cleaned with hot water and anionic detergent.

12.0 ACCIDENT PREVENTION

- The Site Safety Officer has administrative responsibilities for implementing the provisions of this Health and Safety Plan.

- The Site Safety Officer will hold daily safety briefings at the start of each work day.

- If site activities interrupt the normal flow of pedestrian or vehicular traffic, appropriate barricades will be erected field equipment. Traffic safety vests will be worn by personnel working within 10 feet of any active roadway.

- The Site Safety Officer will attempt to prevent unauthorized personnel from entering project exclusion zones. Authorized visitors will be briefed on site contaminants, personal protective equipment requirements of this Plan.

- The Site Safety Officer will periodically inspect the work area for infractions of Health and Safety requirements of this Plan.

- The Site Safety Officer will investigate and promptly report accidents to the Corporate Safety and Health Manager.

- Site activities will be conducted only during daylight hours unless adequate portable lighting is mobilized to the project site.

- The "buddy system" will be observed at all times during intrusive site investigations. A minimum of two people will work together and remain within eye sight or not greater than 100 ft. apart.

13.0 EMERGENCY RESPONSE PROCEDURES

The Project Manager is responsible for obtaining and recording the following emergency information prior to site mobilization:

Nearest Hospital/Clinic: St. Elizabeth Hospital Phone: (920) 738-2000

Estimated Drive Time: 7 minutes (1.8 miles)

Directions From Site:
See attached

EMERGENCY TELEPHONE CONTACTS

Ambulance:	**911**
Fire Department:	**911**
Police:	**911**
Safety and Health Manager:	**(913) 202-7525**

13.1 Personal Injury

For minor injuries, such as cuts, burns, exhaustion, heat cramps, insect stings, etc., the affected employee will be removed to an uncontaminated area. The SSO or other designated employee trained in first aid procedures will administer appropriate first aid. If the injury warrants additional medical attention, the affected employee will be properly decontaminated and transported to the nearest hospital or emergency medical facility.

For more serious injuries the Site Safety Officer or designee will summon an ambulance to the project site. No attempt will be made by Terracon personnel to move the victim, without the aid and/or instructions of qualified medical personnel.

Where air monitoring indicates the absence of toxic gases or vapors, the ambulance will be directed to the affected employee. If site conditions warrant and as time permits, the wheels of the ambulance will be decontaminated with high pressure wash. The SSO or designee will accompany the ambulance to the medical facility, and provide guidance concerning additional decontamination which may be required for the injured employee, ambulance or attendants.

ACKNOWLEDGMENT OF INSTRUCTION

All Terracon personnel are required to sign the following acknowledgment of instruction form prior to conducting project activities. This acknowledgment is not a waiver. It is the primary method used in compiling environmental experience and contaminant exposure records for Terracon personnel. Upon written request, a copy of your environmental work record will be provided by the Corporate Safety and Health Manager.

PROJECT NAME: N.W. Mauthe Superfund Site

TERRACON JOB #: 58117057

I understand that this project involves the investigation of a project site with potential chlorinated solvent contamination. The probability of encountering sustained breathing zone concentrations of chlorinated solvent vapors in excess of permissible exposure limits during hydraulic probing operations is considered low. However, the possibility of encountering airborne concentrations of these compounds during drilling and sampling tasks cannot be ruled out. I have read this Safety and Health Plan and have received instructions for safe work practices, personal protective equipment and air monitoring requirements. I further understand that if I encounter unanticipated contamination I am to leave the site and immediately notify the Project Manager and Corporate Safety and Health Manager of conditions discovered.

Name: (Please Print)	**Signature**	**Date**:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

PERSONAL PROTECTIVE EQUIPMENT UTILIZED:

__X___ **LEVEL D** _____ **LEVEL D MOD.** ____ **LEVEL C**

AIR MONITORING RESULTS (Attach and return separate page.)

Safety briefing performed by: _____ Date:_____

C H E M I N F O
Canadian Centre for Occupational Health and Safety *
Issue : 96-4 (November, 1996) *

CHEMICAL IDENTIFICATION

TRICHLORETHYLENE

SYNONYMS :
* Trichlorethylene
* Ethylene trichloride

TRADE NAME(S) : Trilene

CAS REGISTRY NUMBER : 79-01-6
UN/NA NUMBER(S) : 1710
RTECS NUMBER(S) : KX4550000
CHEMICAL FAMILY : Halogenated alkene
MOLECULAR FORMULA : C2-H-Cl3
STRUCTURAL FORMULA : Cl2C=CHCl

DESCRIPTION

APPEARANCE AND ODOUR :
Colourless liquid with chloroform-like odour.
ODOUR THRESHOLD :
21 ppm

WARNING PROPERTIES :
Poor - odour threshold is about half of the TLV. Irritation may occur at 30 ppm.

COMPOSITION/PURITY :
Triethanolamine or cresol may be added as antioxidants at concentrations below 1%.

USES AND OCCURRENCES :
Degreasing agent for metal; dry cleaning; thinner in some paints and adhesives.

POTENTIAL HEALTH EFFECTS

EFFECTS OF SHORT-TERM (ACUTE) EXPOSURE :
INHALATION :
Vapours can cause irritation of the nose and throat at levels as low as 30 ppm. At 100-600 ppm, there may be central nervous system depression characterized by dizziness, headache, vertigo, nausea, and excessive fatigue. At high concentrations (above 1,000 ppm) loss of consciousness, tremors, lack of muscular coordination, and visual disorder can occur.

SKIN CONTACT :
Prolonged contact with liquid can cause severe irritation and can lead to dermatitis. Chemical burns have also been reported.

TRICHLORETHYLENE

EYE CONTACT :
Vapours can irritate the eyes. Liquid can cause reversible damage to the cornea.

INGESTION :
Ingestion of trichloroethylene may be followed by vomiting, diarrhea, heart failure, pulmonary bleeding, damage to the nervous system and blindness.

EFFECTS OF LONG-TERM (CHRONIC) EXPOSURE :
Liver damage has been reported following long-term exposure to trichloroethylene. Injury to the nervous system may occur, characterized by tremors, vertigo, decreased feeling in the hands, anxiety, slow down of the heart rate, and insomnia. Behavioural problems were also observed.

CARCINOGENICITY :
In human studies, trichloroethylene exposure does not significantly increase the rate of cancer. There is limited evidence of carcinogenicity in animal studies.

TERATOGENICITY AND EMBRYOTOXICITY :
Trichloroethylene can cross the placental barrier. Increased menstrual disorders in women and decreased sexual potency in men have been reported following high-level exposures (100 to 630 ppm) which also caused nervous system disturbances (4).

MUTAGENICITY :
Limited human information is available; report of abnormal chromosomes in blood of workers with intense exposure to trichloroethylene. Positive result in mutagenicity tests in mice (micronucleus test) and yeast and in a cell transformation test. Weak or negative results in several short-term tests in bacteria and mammalian cells.

POTENTIAL FOR ACCUMULATION :
Unlikely to accumulate: biological half-life about 41 h.

FIRST AID MEASURES

INHALATION :
Remove source of contamination or move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration immediately. If heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Obtain medical attention.

SKIN CONTACT :
Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with water and non-abrasive soap. If irritation persists, obtain medical attention. Completely decontaminate clothing, shoes and leather goods before re-use or discard.

EYE CONTACT :
Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes, by the clock, holding the eyelid(s) open. If irritation persists, obtain medical attention. Protect the eyes from light if painful.

TRICHLOROETHYLENE

INGESTION :
Never give anything my mouth if victim is rapidly losing consciousness or is unconscious or convulsing. DO NOT INDUCE VOMITING. Have victim drink 240 to 300 mL (8 to 10 oz.) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Repeat administration of water. Obtain medical attention immediately.

FIRE FIGHTING MEASURES

FLASH POINT :
None by conventional test method
LOWER FLAMMABLE (EXPLOSIVE) LIMIT (LFL/LEL) :
8.0% at 25 deg C; 7.8% at 100 deg C (continuous contact with ignition source)
UPPER FLAMMABLE (EXPLOSIVE) LIMIT (UFL/UEL) :
10.5% at 25 deg C; 52% at 100 deg C (continuous contact with ignition source)
AUTOIGNITION (IGNITION) TEMPERATURE :
410 deg C (770 deg F)
COMBUSTION AND THERMAL DECOMPOSITION PRODUCTS :
Phosgene, carbon monoxide, hexachlorobutene, dichloracetyl chloride, hydrogen chloride
EXTINGUISHING MEDIA :
Water fog, dry chemical, carbon dioxide, foam
FIRE FIGHTING INSTRUCTIONS :
Use water-spray to keep fire-exposed containers cool. Water-spray may be used to flush spills away from fire-exposed zone.
.
Trichloroethylene vapour can burn with difficulty in the presence of a continuous ignition source. Its fire hazard is considered to be relatively low.

EXPOSURE GUIDELINES

THRESHOLD LIMIT VALUES (TLVs) / AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH) / 1996 *

TIME-WEIGHTED AVERAGE (TLV-TWA) : 50 ppm (269 mg/m3) - Carcinogenicity Designation A5
SHORT-TERM EXPOSURE LIMIT (TLV-STEL) : 100 ppm (537 mg/m3) - Carcinogenicity Designation A5

CARCINOGENICITY DESIGNATION A5 - Not suspected as a Human Carcinogen:
Substance is not suspected to be a human carcinogen on the basis of properly conducted human studies. Negative evidence of carcinogenicity in laboratory animals will be considered if it is supported by other relevant data.

TRICHLOROETHYLENE

PERMISSIBLE EXPOSURE LIMITS (PELs) / FINAL RULE LIMITS /
U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) *

TIME WEIGHTED AVERAGE (PEL-TWA) : 50 ppm (270 mg/m3)
SHORT TERM EXPOSURE LIMIT (PEL-STEL) : 200 ppm (1080 mg/m3)

NOTE: The OSHA PEL Final Rule Limits are currently non-enforceable due to a court decision. The OSHA PEL Transitional Limits are now in force.

PERMISSIBLE EXPOSURE LIMITS (PELs) / TRANSITIONAL LIMITS /
U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) *

TIME WEIGHTED AVERAGE (PEL-TWA) : **100 ppm**
CEILING EXPOSURE LIMIT (PEL-C) : 200 ppm
TRANSITIONAL LIMIT PEL COMMENTS :
Acceptable maximum peak above the acceptable ceiling concentration for an 8-hour shift: 300 ppm (5 minute maximum duration in any 2 hours). (Table Z-2).

PHYSICAL AND CHEMICAL PROPERTIES

MOLECULAR WEIGHT : 131.5
CONVERSION FACTOR : 1 ppm = 5.367 mg/m3; 1 mg/m3 = 0.186 ppm at 25 deg C
MELTING POINT : -73 deg C (-99.4 deg F)
BOILING POINT : 86.7 deg C (188 deg F)
RELATIVE DENSITY (SPECIFIC GRAVITY) : 1.465 (water=1)
SOLUBILITY IN WATER : Slight
SOLUBILITY IN OTHER LIQUIDS : Soluble in most organic solvents.
VAPOUR DENSITY : 4.54 (air=1)
VAPOUR PRESSURE : 57.8 mm Hg at 20 deg C
SATURATION VAPOUR CONCENTRATION : 10.2% at 25 deg C
EVAPORATION RATE : No data
pH VALUE : Not applicable
CRITICAL TEMPERATURE : Not available

STABILITY AND REACTIVITY

STABILITY :Moderately stable. Decomposed slowly by light in presence of moisture.
HAZARDOUS POLYMERIZATION :Does not occur
HAZARDOUS DECOMPOSITION PRODUCTS :Hydrogen chloride

CHEMICAL HAZARDS RESPONSE INFORMATION SYSTEM
Produced by: United States Coast Guard
Provided by: Canadian Centre for Occupational Health and Safety
Issue : 99-4 (November, 1999) *