Hanby Environmental

"For Accurate Field Analysis."

Water Test Kit

Material Safety Data Sheets

Hanby Environmental

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Safety Data Sheet
According to OSHA and ANSI

Printing date 11/12/2012 Reviewed on 01/05/2012

1 Identification of the substance/mixture and of the company/undertaking

Product identifier
Product name: Aluminum chloride
Stock number: 88488
CAS Number:
7446-70-0
EC number:
231-208-1
Index number:
013-003-00-7
Relevant identified uses of the substance or mixture and uses advised against.
Sector of Use SU24 Scientific research and development

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Alfa Aesar, A Johnson Matthey Company
Johnson Matthey Catalog Company, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com

Information Department: Health, Safety and Environmental Department
Emergency telephone number:
During normal hours the Health, Safety and Environmental Department at (800) 343-0660. After normal hours call Carechem 24 at (866) 928-0789.

2 Hazards identification

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

C; Corrosive

R34: Causes burns.
Information concerning particular hazards for human and environment: Not applicable

Label elements
Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS05

Signal word Danger
Hazard statements
H314 Causes severe skin burns and eye damage.
Precautionary statements
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard description:
WHMIS classification
D2B - Toxic material causing other toxic effects

(Contd. on page 2)

(Contd. of page 1)

E - Corrosive material

Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)

HEALTH	3
FIRE	0
REACTIVITY	1

Health (acute effects) = 3
Flammability = 0
Reactivity = 1

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances
CAS# Description:
7446-70-0 Aluminium chloride, anhydrous
Identification number(s):
EC number: 231-208-1
Index number: 013-003-00-7

4 First aid measures

Description of first aid measures
General information Immediately remove any clothing soiled by the product.
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and delayed
No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Firefighting measures

Extinguishing media
Suitable extinguishing agents CO2, sand, extinguishing powder. Do not use water.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Metal oxide fume
Hydrogen chloride (HCl)
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
Methods and material for containment and cleaning up:
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.

(Contd. on page 3)

USA

(Contd. of page 2)

Ensure adequate ventilation.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling
Precautions for safe handling
Handle under dry protective gas.
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires: The product is not flammable

Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility:
Store away from oxidizing agents.
Store away from strong bases.
Store in the dark.
Store away from water/moisture.
Further information about storage conditions:
Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and water.
Protect from exposure to light.
Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:	
7446-70-0 Aluminium chloride, anhydrous (100.0%)	
REL (USA)	2 mg/m³ as Al
TLV (USA)	1* mg/m³ as Al;*as respirable fraction
EL (Canada)	2 mg/m³ as Al

Additional information: No data

Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality.
Quality will vary from manufacturer to manufacturer.
Eye protection:
Tightly sealed goggles
Full face protection
Body protection: Protective work clothing.

(Contd. on page 4)

(Contd. of page 3)

9 Physical and chemical properties

Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Powder or granules
Color:	Yellow to gray
Odor:	Pungent
Odor threshold:	Not determined.
pH-value (100 g/l) at 20°C (68 °F):	2.4
Change in condition	
Melting point/Melting range:	190°C (374 °F) (subl)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flammability (solid, gaseous)	Not determined.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Auto igniting:	Not determined.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure at 20°C (68 °F):	0.00003 hPa
Density at 20°C (68 °F):	2.44 g/cm³ (20.362 lbs/gal)
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Reacts with water forming hydrochloric acid (HCl)
Segregation coefficient (n-octonol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity
Chemical stability
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions Reacts with water forming hydrochloric acid (HCl)
Incompatible materials:
Bases
Water/moisture
Light
Hazardous decomposition products:
Metal oxide fume
Hydrogen chloride (HCl)

11 Toxicological information

Information on toxicological effects
Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral	LD50	1130 mg/kg (mouse)
		3450 mg/kg (rat)
Dermal	LD50	>2 gm/kg (rabbit)

Primary irritant effect:
on the skin: Corrosive effect on skin and mucous membranes.
on the eye: Strong corrosive effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

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USA

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The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute and/or other multiple dose toxicity data for components in this product.
The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive and/or mutation data for components in this product.

12 Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Do not allow material to be released to the environment without proper governmental permits.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods
Recommendation Consult state, local or national regulations to ensure proper disposal.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

UN-Number	
DOT, ADR, IMDG, IATA	UN1726
UN proper shipping name	
DOT, IMDG, IATA	ALUMINIUM CHLORIDE, ANHYDROUS
ADR	1726 ALUMINIUM CHLORIDE, ANHYDROUS
Transport hazard class(es)	
DOT	

Class	8 Corrosive substances.
Label	8
ADR	

Class	8 (C2) Corrosive substances
Label	8
IMDG, IATA	

Class	8 Corrosive substances.
Label	8
Packing group	
DOT, ADR, IMDG, IATA	II

(Contd on page 6)

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Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Corrosive substances
Danger code (Kemler):	80
EMS Number:	F-A,S-B
Segregation groups	Acids
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	UN1726, ALUMINIUM CHLORIDE, ANHYDROUS, 8, II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Domestic Substances List (DSL).
Information about limitation of use: For use only by technically qualified individuals.
Other regulations, limitations and prohibitive regulations
Substances of very high concern (SVHC) according to REACH, Article 57
Substance is not listed.
REACH - Pre-registered substances Substance is listed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department.
Contact:
Zachariah C. Holt
Global EHS Manager
Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Carbon tetrachloride
Product Number	:	270652
Brand	:	Sigma-Aldrich
Supplier	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+1 800-325-5832
Fax	:	+1 800-325-5052
Emergency Phone # (For both supplier and manufacturer)	:	(314) 776-6555
Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Carcinogen, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption

Target Organs

Liver, Kidney, Eyes, Nerves., Heart

Other hazards which do not result in classification
Rapidly absorbed through skin.

GHS Classification
Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Skin irritation (Category 3)
Eye irritation (Category 2B)
Carcinogenicity (Category 2)
Specific target organ toxicity - repeated exposure (Category 1)
Acute aquatic toxicity (Category 3)
Chronic aquatic toxicity (Category 3)
Hazardous to the ozone layer (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled
H316	Causes mild skin irritation.
H320	Causes eye irritation.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

H412	Harmful to aquatic life with long lasting effects.
H420	Harms public health and the environment by destroying ozone in the upperatmosphere

Precautionary statement(s)

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311	Call a POISON CENTER or doctor/ physician.

HMIS Classification

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	0

NFPA Rating

Health hazard:	2
Fire:	0
Reactivity Hazard:	0

Potential Health Effects

Inhalation	Toxic if inhaled. May cause respiratory tract irritation.
Skin	Toxic if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Tetrachloromethane

Formula : CCl_4 CCl_4

Molecular Weight : 153.82 g/mol

Component		Concentration
Tetrachloromethane		
CAS-No.	56-23-5	-
EC-No.	200-262-8	
Index-No.	602-008-00-5	

4. FIRST AID MEASURES

General advice
Move out of dangerous area.Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Tetrachloromethane	56-23-5	TWA	5 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Liver damage Suspected human carcinogen Danger of cutaneous absorption			
		STEL	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Liver damage Suspected human carcinogen Danger of cutaneous absorption			
		ST	2 ppm 12.6 mg/m3	USA. NIOSH Recommended Exposure Limits
	Potential Occupational Carcinogen See Appendix A			
		TWA	10 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
	Z37.17-1967			
		CEIL	25 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
	Z37.17-1967			
		Peak	200 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
	Z37.17-1967			
		TWA	2 ppm	USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

			12.6 mg/m3	1910.1000

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Fluorinated rubber
Minimum layer thickness: 0.7 mm
Break through time: 480 min
Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.4 mm
Break through time: 240 min
Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	no data available

Safety data

pH	no data available
Melting point/freezing point	Melting point/range: -23 °C (-9 °F) - lit.
Boiling point	76 - 77 °C (169 - 171 °F) - lit.
Flash point	does not flash
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available

Vapour pressure	45 hPa (34 mmHg) at 0.3 °C (32.5 °F) 120 hPa (90 mmHg) at 19.8 °C (67.6 °F) 14,549 hPa (10,913 mmHg) at 24 °C (75 °F)
Density	1.594 g/cm3 at 25 °C (77 °F)
Water solubility	0.8461 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water	log Pow: 2.83 at 25 °C (77 °F)
Relative vapor density	no data available
Odour	sweet
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
no data available

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
LD50 Oral - rat - 2,350 mg/kg

Inhalation LC50
LC50 Inhalation - rat - 4 h - 8000 ppm

Dermal LD50
LD50 Dermal - rabbit - > 20,000 mg/kg

Other information on acute toxicity
no data available

Skin corrosion/irritation
Skin - rabbit - Mild skin irritation - 24 h - Draize Test

Serious eye damage/eye irritation
Eyes - rabbit - Mild eye irritation - 24 h - Draize Test

Respiratory or skin sensitization

Germ cell mutagenicity
no data available

Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies

IARC:	2B - Group 2B: Possibly carcinogenic to humans (Tetrachloromethane)
NTP:	Reasonably anticipated to be a human carcinogen (Tetrachloromethane)
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard
no data available

Potential health effects

Inhalation	Toxic if inhaled. May cause respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	Toxic if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure
Vomiting, Diarrhoea, Abdominal pain, Nausea, Dizziness, Headache, Damage to the eyes., Liver injury may occur., Kidney injury may occur., Exposure to and/or consumption of alcohol may increase toxic effects., Contact with skin can cause:, Pain, Erythema, hyperemia

Synergistic effects
no data available

Additional Information
RTECS: FG4900000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	mortality LC50 - Danio rerio (zebra fish) - 24.3 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - Daphnia magna (Water flea) - 35 mg/l - 48 h Method: OECD Test Guideline 202
Toxicity to algae	Growth inhibition EC50 - Algae - 20 mg/l - 72 h Method: OECD Test Guideline 201

Persistence and degradability
no data available

Bioaccumulative potential

Bioaccumulation	Lepomis macrochirus (Bluegill) - 21 d Bioconcentration factor (BCF): 30

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1846 Class: 6.1 Packing group: II
Proper shipping name: Carbon tetrachloride
Reportable Quantity (RQ): 10 lbs
Marine Pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 1846 Class: 6.1 Packing group: II EMS-No: F-A, S-A
Proper shipping name: CARBON TETRACHLORIDE
Marine Pollutant: Marine pollutant

IATA
UN number: 1846 Class: 6.1 Packing group: II
Proper shipping name: Carbon tetrachloride

15. REGULATORY INFORMATION

OSHA Hazards
Carcinogen, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Tetrachloromethane	56-23-5	2007-07-01

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Tetrachloromethane	56-23-5	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Tetrachloromethane	56-23-5	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Tetrachloromethane	56-23-5	2007-07-01

California Prop. 65 Components

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause cancer Tetrachloromethane	56-23-5	2007-09-28

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.