

Revision Date 24-Nov-2010

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Description: 4-Chlorobenzotrichloride
Cat No. 108710000; 108710050; 108710500
Synonyms \$1,\$1,\$1,4-Tetrachlorotoluene; PCTC

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

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
 Janssen Pharmaceuticaaan 3a
 2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 800-ACROS-01
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
 Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300
 CHEMTREC Phone Number, Europe: 703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Skin Corrosion / irritation	Category 2
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3
Specific target organ systemic toxicity (repeated exposure)	Category 1

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R phrases mentioned in this Section, see Section 16

Symbol(s) T - Toxic
R -phrase(s) R45 - May cause cancer
 R62 - Possible risk of impaired fertility
Risk Combination Phrases R21/22 - Harmful in contact with skin and if swallowed
 R37/38 - Irritating to respiratory system and skin
 R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation

2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Danger

Hazard Statements

H372 - Causes damage to organs through prolonged or repeated exposure
H350 - May cause cancer
H312 - Harmful in contact with skin
H302 - Harmful if swallowed
H315 - Causes skin irritation
H335 - May cause respiratory irritation
H361f - Suspected of damaging fertility

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P281 - Use personal protective equipment as required
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Other Hazards

Lachrymator (substance which increases the flow of tears).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
4-Chlorobenzotrichloride 5216-25-1	EEC No. 226-009-1	99	5216-25-1	Carc.Cat.2;R45 Repr.Cat.3;R62 T;R48/23 Xn;R21/22 Xi;R37/38	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Carc. 1B (H350) Repr. 2 (H361f) STOT SE 3 (H335) STOT RE 1 (H372)	-

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact	Immediate medical attention is required Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Immediate medical attention is required
Ingestion	Call a physician immediately Clean mouth with water
Inhalation	Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Immediate medical attention is required
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media**Suitable Extinguishing Media**

Water spray Carbon dioxide (CO₂) Dry chemical chemical foam

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable and closed containers for disposal. Wear self-contained breathing apparatus and protective suit. Do not let this chemical enter the environment.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe dust Do not breathe vapors or spray mist Do not get in eyes, on skin, or on clothing Do not ingest Use only in area provided with appropriate exhaust ventilation

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place Keep container tightly closed

Specific End Uses

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure limits

Component

4-

Chlorobenzotrithloride

European Union	The United Kingdom	France	Belgium	Spain

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Liquid

Appearance

Clear

odor

odorless

pH

No information available.

Vapor Pressure

0.04 hPa @ 20 °C

Vapor Density

7.9

Boiling Point/Range

245°C / 473°F @ 760 mmHg

Melting Point/Range

5.8°C / 42.4°F

Decomposition temperature

> 300°C

Flash Point

> 112°C / > 233.6°F

Water Solubility

decomposes

Specific Gravity

1.490

Molecular Formula

C7 H4 Cl4

Molecular Weight

229.92

10. STABILITY AND REACTIVITY

Reactivity

10. STABILITY AND REACTIVITY

Chemical Stability

Moisture sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization

No information available.

Hazardous Reactions .

No information available.

Conditions to Avoid

Incompatible products, Exposure to moist air or water.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Hydrogen chloride gas. Carbon monoxide (CO). Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information

No acute toxicity information is available for this product

Component Information

Component

4-Chlorobenzotrithloride

LD50 Oral	LD50 Dermal	LC50 Inhalation
614 mg/kg (Rat)	1900 mg/kg (Rat) 2 g/kg (Rabbit)	

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in this product

Sensitization

No information available.

Mutagenic Effects

No information available.

Reproductive Effects

No information available.

Developmental Effects

No information available.

Target Organs

No information available.

Other Adverse Effects

See actual entry in RTECS for complete information

Endocrine Disruptor Information

None known

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
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12. ECOLOGICAL INFORMATION

4-Chlorobenzotrithloride	26.9 mg/L LC50 96 h	EC50 = 10.8 mg/L 30 min EC50 = 6.33 mg/L 5 min EC50 = 7.27 mg/L 15 min	190 mg/L EC50 = 24 h
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Persistence and degradability

Expected to be biodegradable

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 3265
Hazard Class 8
Packing Group III
Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

ADR

UN-No 3265
Hazard Class 8
Packing Group III
Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

IATA

UN-No 3265
Hazard Class 8
Packing Group III
Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
4-Chlorobenzotrifluoride	226-009-1	-		X	-	X	X	X	-	X	-

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory Lists

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2-3

R45 - May cause cancer

R62 - Possible risk of impaired fertility

R21/22 - Harmful in contact with skin and if swallowed

R37/38 - Irritating to respiratory system and skin

R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation

Revision Date 24-Nov-2010

Revision Summary Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

End of Safety Data Sheet