SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and

Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

Creation Date: Aug 10, 2017 Revision Date: Aug 10, 2017

1. Identification

1.1 GHS Product identifier

Product name 2-Chlorobenzyl chloride

1.2 Other means of identification

Product number

Other names A,O-DICHLOROTOLUENE

1.3 Recommended use of the chemical and restrictions on use

Identified uses For industry use only. **Uses advised against** No data available

1.4 Supplier's details

Company Chemintel Technology Limited

Address Room 908, 9th floor, Xinghui Building, Xiacheng District, Hangzhou, China

Telephone 0571-86921969

1.5 Emergency phone number

Emergency phone number –

Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT

+8 hours).

2. Hazard identification

2.1 Classification of the substance or mixture

Acute toxicity - Oral, Category 4 Serious eye damage, Category 1

2.2 GHS label elements, including precautionary statements

Pictogram(s)

(!)



Signal word

Warning

Hazard statement(s)

H302 Harmful if swallowed

H312 Harmful in contact with skin

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H332 Harmful if inhaled

H335 May cause respiratory irritation

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

Prevention P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

Response P301+P312 IF SWALLOWED: Call a POISON

CENTER/doctor/...if you feel unwell.

P330 Rinse mouth.

P301+P312 IF SWALLOWED: Call a POISON

CENTER/doctor/...if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P312 Call a POISON CENTER/doctor/...if you feel unwell.

P321 Specific treatment (see ... on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P391 Collect spillage.

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents/container to ...

2.3 Other hazards which do not result in classification

None

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and	CAS	EC	Concentration
	synonyms	number	number	O 0-2-0 0-2-0 0-2-0 1-2-

2-Chlorobenzyl chloride	2-Chlorobenzyl chloride	611-19-8	None	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

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. 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.

4.2 Most important symptoms/effects, acute and delayed

No data available

4.3 Indication of immediate medical attention and special

treatment needed, if necessary

No data available

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Specific hazards arising from the chemical

No data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 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.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Providing appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values No data available

Biological limit values No data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

No data available

9. Physical and chemical properties

Physical state Clear, colorless to pale yellow liquid.

Colour no data available

Odour no data available

Melting point/ freezing point -13 $^{\circ}$ C (lit.)

Boiling point or initial boiling point and boiling range 213-214°C (lit.)

Flammability No data available

Lower and upper explosion limit / flammability limit No data available

Flash point 82 ℃ (lit.)

Auto-ignition temperature No data available

Decomposition temperature No data available

pH No data available

Kinematic viscosity No data available

Solubility In water: insoluble

Partition coefficient n- octanol/water (log value) No data available

Vapour pressure 3 mmHg at 84 ℃

Density and/or relative density 1.274 g/cm³

Relative vapour density 5.5 (vs air)

Particle characteristics No data available

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No data available

11. Toxicological information

Acute toxicity

Oral: No date available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

${\bf 12.}\ Ecological\ information$

12.1 Toxicity

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Toxicity to microorganisms: No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

14.1 UN Number

ADR/RID: UN2235 IMDG: UN2235

IATA: UN2235

14.2 UN Proper Shipping Name

ADR/RID: CHLOROBENZYL CHLORIDES, LIQUID

IMDG: CHLOROBENZYL CHLORIDES, LIQUID

IATA: CHLOROBENZYL CHLORIDES, LIQUID

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1

IATA: 6.1

14.4 Packing group, if applicable

ADR/RID: III IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: yes IMDG: yes IATA: yes

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
2-Chlorobenzyl chloride	2-Chlorobenzyl chloride	611-19-8	none
European Inventory (EINECS)	Listed.		
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Haz	Not Listed.		
New Zealand Invento	Listed.		
Philippines Inventory (PICCS)	Listed.		
Vietnam National Ch	Listed.		
Chinese Chemical Inv IECSC)	Listed.		

16. Other information

Information on revision

Creation Date Aug 10, 2017

Revision Date Aug 10, 2017

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous

Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by

Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%