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## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : 1,2,4-Trichlorobenzene  
Product Number : T103300  
Brand : aladdin  
CAS-No. : 120-82-1

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

Identified uses : Laboratory chemicals, Manufacture of substances

#### 1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co., Ltd  
Address : 36 Xinjinqiao Road, Shanghai  
Telephone : 400-620-6333  
Fax : no data available

#### 1.4 Emergency telephone number

Emergency Phone : 0532-83889090

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Skin corrosion/irritation (Category 2), H315

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 GHS Label elements, including precautionary statements

<b>Pictogram</b>	
<b>Signal word</b>	Warning
<b>Hazard statement(s)</b>	
H302	Harmful if swallowed
H315	Causes skin irritation

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H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
<b>Precautionary statement(s)</b>	
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P330	Rinse mouth.
P391	Collect spillage.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.
P302+P352	IF ON SKIN: wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: Dichloromethane
Formula	: C6H3Cl3
Molecular weight	: 181.45
CAS No.	: 120-82-1
EC-NO.	: 204-428-0

Component	Classification	Concentration
<b>1,2,4-Trichlorobenzene</b>	Acute toxicity Category 4; Skin corrosion/irritation Category 2; Short-term (acute) aquatic hazard Category 1; Long-term (chronic) aquatic hazard Category 1; H302, H315, H400, H410 M-Factor - Aquatic Acute: 10	Standard for GC, ≥99.5% (GC)

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

no data available

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**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

**Unsuitable extinguishing media**

no data available

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides Hydrogen chloride gas Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Dispose of properly. Clean up affected area.

**6.4 Reference to other sections**

For disposal see section 13.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

**7.3 Specific end use(s)**

no data available

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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

Component	CAS No.	Value	Control parameters	Basis
1,2,4-Trichlorobenzene	120-82-1	C	5 ppm	U.S.A. ACGIH threshold limit value (TLV)
		C	5ppm40 mg/m3	U.S.A. NIOSH recommended exposure limits
		C	5ppm40 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		C	5ppm40 mg/m3	California allowable exposure limits for chemical pollutants (para 107 (para. 8)

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## 8.2 Exposure controls

### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### Personal protective equipment

#### Eyel/face protection

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

#### Skin 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.

#### Body Protection

protective clothing

#### Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	form: Liquid color: Colorless
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	16 °C (lit.)
f) Initial boiling point and boiling range	214 °C (lit.)
g) Flash point	110°C
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.454
n) Water solubility	It can be miscible with ether, benzene, petroleum ether and carbon disulfide, soluble in oil, slightly soluble in ethanol, insoluble in water, water solubility: 49 mg / L (20 ° C).
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

### 9.2 Other safety information

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no data available

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#### SECTION 10: Stability and reactivity

##### 10.1 Reactivity

no data available

##### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

##### 10.3 Possibility of hazardous reactions

Exothermic reaction with: Oxidizing agents Alkali metals Alkaline earth metals Risk of explosion with: fire-promoting substances

##### 10.4 Conditions to avoid

Strong heating.

##### 10.5 Incompatible materials

Strong oxidizing agents

##### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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#### SECTION 11: Toxicological information

##### 11.1 Information on toxicological effects

###### Acute toxicity

Oral: No data available

LD50 Oral - Rat - male and female - 930 mg/kg

(OECD Test Guideline 401)

Inhalation: No data available

LD50 Dermal - Rat - 6,139 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Convulsions or effect on seizure threshold.

(RTECS)

###### Skin corrosion/irritation

No data available Skin - Rabbit Result: Moderate skin irritation Remarks: (RTECS) (Regulation (EC) No 1272/2008, Annex VI)

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**Serious eye damage/eye irritation**

No data available Eyes - Rabbit Result: No skin irritation - 24 h (OECD Test Guideline 405)

**Respiratory or skin sensitisation**

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)

**Germ cell mutagenicity**

No data available Test Type: Ames test Test system: *S. typhimurium* Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

RTECS: DC2100000

Nausea, Dizziness, Headache, Gastrointestinal disturbance, Liver injury may occur., Kidney injury may occur.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information****12.1 Toxicity**

No data available

Toxicity to daphnia

and other aquatic

invertebrates

EC50 - *Daphnia magna* (Water flea) - 1.4 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae static test ErC50 - *Pseudokirchneriella subcapitata* (green algae) -

1.4 mg/l - 96 h

(US-EPA)

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**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 Results of PBT and vPvB assessment**

no data available

**12.6 Other adverse effects**

no data available

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**SECTION 13:**

**13.1 Disposal considerations**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

no data available

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**SECTION 14: Transport information**

**DOT (US)**

UN number: 2321

Packing group: III

Class: 6.1

Proper shipping name:

Reportable Quantity(RQ): no data available Poison Inhalation Hazard: no data

TRICHLOROBENZENES, LIQUID

Environmental Hazards: yes

**IMDG**

UN number: 2321

Packing group: III

EMS-No: no data available

Proper shipping name: TRICHLOROBENZENES, LIQUID

**IATA**

UN number: 2321

Packing group: III

Class: 6.1

Proper shipping name: TRICHLOROBENZENES, LIQUID

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**SECTION 15: Regulatory information**

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

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**SECTION 16: Other information**

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### Further information

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