

# 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** 4-Chlorobenzaldehyde

### 1.2 Other means of identification

**Product number** -

**Other names** AMMONIUM STANDARD

### 1.3 Recommended use of the chemical and restrictions on use

**Identified uses** For industry use only. Intermediates

**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  
Skin irritation, Category 2  
Skin sensitization, Category 1  
Eye irritation, Category 2  
Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic2

## 2.2 GHS label elements, including precautionary statements

|                                   |  |
|-----------------------------------|--|
| <b>Pictogram(s)</b>               |   |
| <b>Signal word</b>                | Warning  |
| <b>Hazard statement(s)</b>        | H302 Harmful if swallowed<br><br>H302 Harmful if swallowed<br><br>H315 Causes skin irritation<br><br>H317 May cause an allergic skin reaction<br><br>H319 Causes serious eye irritation<br><br>H411 Toxic to aquatic life with long lasting effects  |
| <b>Precautionary statement(s)</b> |  |
| <b>Prevention</b>                 | P264 Wash ... thoroughly after handling.<br><br>P270 Do not eat, drink or smoke when using this product.<br><br>P280 Wear protective gloves/protective clothing/eye protection/face protection.<br><br>P261 Avoid breathing dust/fume/gas/mist/vapours/spray.<br><br>P272 Contaminated work clothing should not be allowed out of the workplace.<br><br>P273 Avoid release to the environment. |
| <b>Response</b>                   | P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.<br><br>P330 Rinse mouth.<br><br>P302+P352 IF ON SKIN: Wash with plenty of water/...   |

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

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

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

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.

P391 Collect spillage.

**Storage** None

**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 synonyms | CAS number | EC number | Concentration |
|----------------------|---------------------------|------------|-----------|---------------|
| 4-Chlorobenzaldehyde | 4-Chlorobenzaldehyde      | 104-88-1   | 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**

SYMPTOMS: Symptoms of exposure to this compound include irritation of the skin, eyes and mucous membranes. ACUTE/CHRONIC HAZARDS: This chemical may be harmful by inhalation, ingestion or skin absorption. It is an irritant of the skin, eyes and mucous membranes. When heated to decomposition it emits toxic fumes of carbon monoxide, carbon dioxide and hydrogen chloride gas.

## **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**

Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. A water spray may also be used.

## **5.2 Specific hazards arising from the chemical**

This chemical is combustible.

## **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** white solid

**Colour** no data available

**Odour** no data available

**Melting point/ freezing point** 328 °C (lit.)

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

**Flammability** No data available

**Lower and upper explosion limit / flammability limit** No data available

**Flash point** 101 °C(lit.)

**Auto-ignition temperature** No data available

**Decomposition temperature** No data available

**pH** No data available

**Kinematic viscosity** No data available

**Solubility** In water: 935 mg/L (20 °C)

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

**Vapour pressure** 8.75 atm ( 21 °C)

**Density and/or relative density** 1.196 g/cm<sup>3</sup>

**Relative vapour density** 0.6 (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**

4-CHLOROBENZALDEHYDE is sensitive to exposure to air. It is also sensitive to light. REACTIVITY: This chemical is incompatible with strong bases, strong oxidizers and strong reducing agents.

### **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 data 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

## **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: UN2811    IMDG: UN2811

IATA: UN2811

### **14.2 UN Proper Shipping Name**

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S.

IMDG: TOXIC SOLID, ORGANIC, N.O.S.

IATA: TOXIC SOLID, ORGANIC, N.O.S.

### **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**

No data available

## 15. Regulatory information

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

| Chemical name   | Common names and     | CAS number | EC number   |
|---|----------------------|------------|-------------|
| 4-Chlorobenzaldehyde  | 4-Chlorobenzaldehyde | 104-88-1   | none        |
| <b>European Inventory of Existing Commercial Chemical Substances (EINECS)</b>   |                      |            | Listed.     |
| <b>EC Inventory</b>   |                      |            | Listed.     |
| <b>United States Toxic Substances Control Act (TSCA) Inventory</b>              |                      |            | Listed.     |
| <b>China Catalog of Hazardous chemicals 2015</b>                                |                      |            | Not Listed. |
| <b>New Zealand Inventory of Chemicals (NZIoC)</b>                               |                      |            | Listed.     |
| <b>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</b>       |                      |            | Listed.     |
| <b>Vietnam National Chemical Inventory</b>                                      |                      |            | Listed.     |
| <b>Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)</b> |                      |            | Listed.     |

## 16. Other information

### Information on revision

**Creation Date** Aug 10, 2017

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### 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%