

# MATERIAL SAFETY DATA SHEET

Ortho-Chlorobenzylidene Malononitrile



**DAYU CHEMICAL**  
Dedication Around Your Utilizing

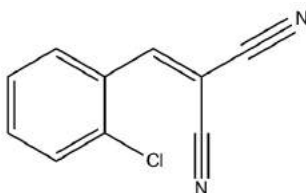
## SECTION 1: Identification of the substance/mixture and of the company

### 1.1 Product identifiers

Product name Ortho-Chlorobenzylidene Malononitrile  
CAS number 2698-41-1

Molecular formula C<sub>10</sub>H<sub>5</sub>ClN<sub>2</sub>

Chemical structure



Molecular weight 188.5  
Appearance White crystal with the odor of pepper

### 1.2 Details of the supplier of the material safety data sheet

Company SHAANXI DAYU CHEMICAL CO., LTD.  
Address Building NO.8, XiShi Jiajun, , XiShi 2nd Road,  
Lianhu District, Xi'an, Shaanxi, China  
Telephone 0086-29-88643345  
Email info@dayuchemical.com  
Website www.hidayuchemical.com

## SECTION 2: Composition/information on ingredients

Product name Ortho-Chlorobenzylidene Malonitrile  
CAS number 2698-41-1  
Purity 99%

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## **SECTION 3: Hazards identification**

### **EMERGENCY OVERVIEW**

Appearance: white crystalline powder.

The toxicological properties of this material have not been fully investigated. Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs: None.

### **Potential Health Effects**

#### **Eye:**

May cause eye irritation. The toxicological properties of this material have not been fully investigated.

#### **Skin:**

May cause skin irritation. The toxicological properties of this material have not been fully investigated.

#### **Ingestion:**

May cause irritation of the digestive tract. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

#### **Inhalation:**

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

#### **Chronic:**

No information found.

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## **SECTION 4: First aid measures**

#### **Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

#### **Skin:**

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

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## **SECTION 5: Firefighting measures**

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point:

Not available.

Autoignition Temperature:

Not available.

Explosion Limits, Lower:

Not available.

Upper:

Not available.

NFPA Rating:

(estimated) Health: 1; Flammability: 0; Instability: 0

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## **SECTION 6: Accidental release measures**

General Information:

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

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## **SECTION 7: Handling and storage**

**Handling:**

Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:**

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

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## **SECTION 8: Exposure controls/personal protection**

**Engineering Controls:**

Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits:**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
O-Chlorobenzylidene Malononitrile	none listed	none listed	none listed

**OSHA Vacated PELs:**

O-Chlorobenzylidene Malononitrile

**OSHA:**

2mg/m<sup>3</sup>:SA:CF/SAF/SCBAF

Emergency or planned entry in unknown concentration or IDLH CONDITIONS: SCVAF:PD,PP/  
SAF:PD,PP:ASCBA

**Escape:**

GMFOVHiE/SCBAE

## Personal Protective Equipment

### Eyes:

Wear protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection.

### Skin:

Wear protective gloves to prevent skin exposure.

### Clothing:

Wear appropriate protective clothing to prevent skin exposure.

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## SECTION 9: Physical and chemical properties

Physical State: Crystalline powder

Appearance: white

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 93-96.5 deg C

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: C<sub>10</sub>H<sub>5</sub>N<sub>2</sub>CL

Molecular Weight: 188.5

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## SECTION 10: Stability and reactivity

### Chemical Stability:

Stable under normal temperatures and pressures.

### Conditions to Avoid:

Incompatible materials, dust generation, excess heat.

### Incompatibilities with Other Materials:

Oxidizing agents.

Hazardous Decomposition Products:

Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, hydrogen bromide.

Hazardous Polymerization:

Has not been reported.

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## **SECTION 11: Toxicological information**

RTECS#:

CAS# 2698-41-1

LD50/LC50:

LD50:1366mg/kg

LC50:61g/m3.min

Carcinogenicity:

CAS# 2698-41-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No data available.

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## **SECTION 12: Ecological information**

No information available.

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## **SECTION 13: Disposal considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

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**SECTION 14: Transport information**

	US DOT	IATA	RID/ADR	IMO	CHINA
Shipping Name	TOXIC SOLIDS, ORGANIC, N.O.S.				No information available.
Hazard Class	6.1				
UN Number	UN3448				
Packing Group	II				

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**SECTION 15: Regulatory information****US FEDERAL****TSCA**

CAS# 2698-41-1: None listed. on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**SARA****CERCLA Hazardous Substances and corresponding RQs**

None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**Section 313**

No chemicals are reportable under Section 313.

#### Clean Air Act

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as priority pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### STATE

CAS# 2698-41-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

#### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

#### Safety Phrases

S 24/25 Avoid contact with skin and eyes.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A If contact with skin, wash immediately with plenty of water.

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### **SECTION 16: Other 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. SHAANXI DAYU CHEMICAL CO., LTD. shall not be held liable for any damage resulting from handling or from contact with the above product. Please see additional terms and conditions for reference.