

**3,4-Dimethoxyphenylacetonitrile****SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product Description:** 3,4-Dimethoxyphenylacetonitrile

**Synonyms** Veratryl cyanide; Homoveratronitrile;  
(3,4-Dimethoxyphenyl)acetonitrile;  
3,4-Dimethoxybenzyl Cyanide

**CAS No** 93-17-4  
**Molecular Formula** C10 H11 N O2

**Supplier** Ji'Nan Da Data Industrial Base,  
2222 190 meters southeast Lixia  
District, Jinan, Shandong, China,  
250101  
Office Tel: +86 15688411080

**Emergency Telephone Number** 008615688411080

**E-mail address** info@orientred.com

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

**SECTION 2. HAZARD IDENTIFICATION**

**Physical State**  
Solid

**Appearance**  
White

**Odor**  
Odorless

**Emergency Overview**

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

**Classification of the substance or mixture**

Acute Oral Toxicity	Category 3
Acute Dermal Toxicity	Category 3
Acute Inhalation Toxicity - Dusts and Mists	Category 3

**Label Elements**

**Signal Word**

**Danger**

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## Hazard Statements

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled

## Precautionary Statements

### Prevention

P264 - Wash face, hands and any exposed skin thoroughly after handling

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

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

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

### Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P311 - Call a POISON CENTER or doctor

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

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

P330 - Rinse mouth

P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse

### Storage

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

P405 - Store locked up

### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## Physical and Chemical Hazards

None identified.

## Health Hazards

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

## Environmental hazards

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

This product does not contain any known or suspected endocrine disruptors.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
3,4-Dimethoxyphenylacetonitrile	93-17-4	> 99

## SECTION 4. FIRST AID MEASURES

### Eye Contact

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 while removing all contaminated clothes and shoes.

### Inhalation

Remove from exposure, lie down. Remove to fresh air.

### Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If possible drink milk afterwards.

## Most important symptoms and effects

No information available.

## Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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## Notes to Physician

Treat symptomatically.

## SECTION 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Alcohol resistant foam.

### Extinguishing media which must not be used for safety reasons

No information available.

### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

### Protective Equipment and Precautions for Firefighters

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

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions

Ensure adequate ventilation.

### Environmental Precautions

See Section 12 for additional Ecological Information.

### Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7. HANDLING AND STORAGE

### Handling

Ensure adequate ventilation.

### Storage

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

### Specific Use(s)

Use in laboratories

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Component	China	Taiwan	Thailand	Hong Kong
3,4-Dimethoxyphenylacetone trile	-	TWA: 5 mg/m <sup>3</sup>		Ceiling: 5 mg/m <sup>3</sup>

Component	ACGIH TLV	OSHA PEL	NIOSH	The United Kingdom	European Union
3,4-Dimethoxyphenylacetone trile		(Vacated) TWA: 5 mg/m <sup>3</sup>	IDLH: 25 mg/m <sup>3</sup>	STEL: 15 mg/m <sup>3</sup> 15 min TWA: 5 mg/m <sup>3</sup> 8 hr Skin	

### Legend

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OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

### Exposure Controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

#### Personal protective equipment

**Eye Protection** Wear safety glasses with side shields (or goggles) Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Disposable gloves	See manufacturers recommendations	-	EN 374	(minimum requirement)

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection** Long sleeved clothing

**Respiratory Protection** Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** In case of insufficient ventilation, wear suitable respiratory equipment

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White
<b>Physical State</b>	Solid
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No data available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	62 - 65 °C / 143.6 - 149 °F
<b>Softening Point</b>	No data available
<b>Boiling Point/Range</b>	171 - 178 °C / 339.8 - 352.4 °F @ 10 mmHg
<b>Flash Point</b>	250 °C / 482 °F
<b>Method</b>	No information available
<b>Evaporation Rate</b>	No data available
<b>Flammability (solid,gas)</b>	No information available
<b>Explosion Limits</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available (Air = 1.0)

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Specific Gravity / Density	No data available
Bulk Density	No data available
Water Solubility	Insoluble
Solubility in other solvents	No information available
Partition Coefficient (n-octanol/water)	
Autoignition Temperature	360 °C / 680 °F
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

Molecular Formula	C10 H11 N O2
Molecular Weight	177.2

## SECTION 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Hazardous Reactions	No information available.
Hazardous Polymerization	No information available.
Conditions to Avoid	None known.
Materials to avoid	Strong oxidizing agents. Strong acids. Strong bases.
Hazardous Decomposition Products	Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Hydrogen cyanide (hydrocyanic acid).

## SECTION 11. TOXICOLOGICAL INFORMATION

Product Information	No acute toxicity information is available for this product
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### (a) acute toxicity;

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
3,4-Dimethoxyphenylacetonitrile		LD50 > 2000 mg/kg ( Rat )	LC50 > 5.5 mg/L ( Rat ) 4 h

(b) skin corrosion/irritation;	No data available
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(c) serious eye damage/irritation;	No data available
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(d) respiratory or skin sensitization;	
Respiratory	No data available
Skin	No data available

(e) germ cell mutagenicity;	No data available
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(f) carcinogenicity;	No data available
	There are no known carcinogenic chemicals in this product

(g) reproductive toxicity;	No data available
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(h) STOT-single exposure;	No data available
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(i) STOT-repeated exposure;	No data available
Target Organs	No information available.
(j) aspiration hazard;	No data available
Symptoms / effects, both acute and delayed	No information available

## SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects	Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.
Persistence and Degradability	No information available
Bioaccumulative Potential	No information available
Mobility in soil	No information available
Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant	This product does not contain any known or suspected substance
Ozone Depletion Potential	This product does not contain any known or suspected substance

## SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.
Contaminated Packaging	Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14. TRANSPORT INFORMATION

### Road and Rail Transport

UN-No	UN2811
Proper Shipping Name	Toxic solid, organic, n.o.s.
Hazard Class	6.1
Packing Group	III

### IMDG/IMO

UN-No	UN2811
Proper Shipping Name	Toxic solid, organic, n.o.s.
Hazard Class	6.1
Packing Group	III

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## IATA

UN-No UN2811  
Proper Shipping Name TOXIC SOLID, ORGANIC, N.O.S.\*  
Hazard Class 6.1  
Packing Group III

Special Precautions for User No special precautions required

## SECTION 15. REGULATORY INFORMATION

### International Inventories

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
3,4-Dimethoxyphenylacetonitrile	-	-	X	-	202-225-1	-	-	X	X	X	-	-

## SECTION 16. OTHER INFORMATION

Prepared By Health, Safety and Environmental Department  
Revision Date 27-Apr-2024  
Revision Summary New emergency telephone response service provider.

### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

### Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

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

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

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

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**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

### Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text