

SAFETY DATA SHEET



Acetaldehydoxim

1. Identification of the substance/preparation and of the company/undertaking

Product Name : Acetaldehydoxim
Chemical formula : C₂H₅N-O
Supplier : DSM Specialty Intermediates
 P.O. Box 5489
 6130 PL Sittard
 Netherlands
Emergency telephone number : Netherlands: +31 46 47655555
Recommended use : Agricultural industry.: Intermediate for Insecticides.
EU Category number : Not available.

2. Composition/information on ingredients

Substance/Preparation : Substance

Chemical name	CAS No.	%	EC Number	Classification
Acetaldehydoxim	107-29-9	99.5	203-479-6	R10 Xn; R20/21/22 Xi; R36
See Section 16 for the full text of the R Phrases declared above				

3. Hazards identification

Human health hazards : Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes.
Environmental hazards : Based on the available data of this product no hazardous properties are known.
Physical/chemical Hazards : Flammable. Vapours are heavier than air and may spread along floors. Fire/Explosion Hazards.

4. First-aid measures

Effects and symptoms

Inhalation : Inhalation causes headaches, dizziness, drowsiness, and nausea, and may lead to unconsciousness.
Ingestion : Exposure can cause nausea, headache and vomiting. Exposure to high levels may cause unconsciousness.
Skin contact : May cause headache, nausea or weakness in case of long- term exposure.
Eye Contact : Irritating to eyes. (redness and pain).

First-Aid measures

General : Protection of first-aiders: Put on appropriate personal protective equipment (see Section 8). Move exposed person to fresh air. Remove contaminated clothing and shoes.
Inhalation : If inhaled, remove to fresh air. Keep person warm and at rest. If not breathing, give artificial respiration. Obtain medical attention.
Ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Seek medical attention.
Skin contact : Take off immediately all contaminated clothing. Rinse with plenty of running water. Obtain medical attention.
Eye Contact : Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Obtain medical attention.
First aid facilities : Ensure that eyewash station and safety shower is proximal to the workstation location.

5. Fire-fighting measures

Extinguishing Media

SMALL FIRE

- Suitable** : Use dry chemical or CO₂.
Not Suitable : Do not use water.

LARGE FIRE

- Suitable** : Alcohol-resistant foam.
Not Suitable : Do not use water.

- Unusual fire/explosion Hazards** : Vapour is explosive in air at temperatures higher than the flash point. Vapours are heavier than air and may spread along floors. Exclude sources of ignition and ventilate the area. Within the dispersion area of the vapour/gas, ignition sources can cause fire.
- Hazardous thermal (de)composition products** : In case of fire, may produce toxic and/or corrosive decomposition products such as carbon monoxide, carbon dioxide, nitrogen oxides (NO_x), ammonia (NH₃), amines.
- Special fire-fighting procedures** : Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Protection of fire-fighters** : Wear suitable protective clothing. Self-contained breathing apparatus. Boots.

6. Accidental release measures

- Personal Precautions** : Avoid contact with eyes, skin and clothing. Evacuate surrounding areas. Use suitable protective equipment (Section 8). Consult expert immediately. Keep away from sources of ignition. Take precautionary measures against static discharges. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

- Environmental precautions** : No special measures required.

Clean-up Methods

- Small Spill and Leak** : Do not empty into drains. Take up with tissue or other suitable material. Place in a suitable container. Flush residual spill (area) with large quantity of water. Keep away from incompatible materials and avoid specific conditions (See section 10).
- Large Spill and Leak** : Prevent entry into sewers, basements or confined areas; dike if needed. Absorb spill material with inert material (e.g., dry sand or earth), then place in a chemical waste container. Recycle, if possible. Fire/Explosion Hazards. Keep away from sources of ignition.

Note: See section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Use with adequate ventilation. Use suitable protective equipment. Avoid contact with eyes, skin and clothing. Ventilation required along the floor. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Take measures against static discharge. Keep away from sources of ignition.

- Storage** : Store in a fireproof location. Keep in a cool place. Ventilation required along the floor.

Packaging materials

- Suitable** : Steel with synthetic lining .
Not Suitable : Metal.

Note: See section 10 for stability and reactivity

8. Exposure controls/personal protection

Occupational Exposure Limits

Ingredient Name	Occupational Exposure Limits
United Kingdom (UK) Acetaldehydoxim	Not available.

- Engineering measures** : Use only with adequate ventilation. Ventilation required along the floor. Use explosion-proof electrical (ventilating and lighting) equipment.

- Hygiene measures** : When using do not eat, drink or smoke. Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Personal protective equipment

Respiratory system	: Not required.
Skin and body	: Wear suitable protective clothing.
Eyes	: Safety glasses with side shields.
Hands	: Wear suitable gloves. Do not wear the same gloves for other work.
Recommended material(s)	: 4 - 8h: Rubber, neoprene.

9. Physical and chemical properties

Physical state	: Liquid.
Colour	: Colourless.
Odour	: Characteristic.
Odour threshold	: 1 ppm
Boiling point	: 115 °C
Melting point	: 16 to 46.5 °C
Flash Point	: 40 °C Closed cup (Pensky-Martens.)
Lower explosion limit	: 4.2 volume%
Upper explosive limit	: 50 volume%
Autoignition temperature	: 380 °C
Vapour pressure	: 1.73 kPa
Specific Gravity	: 0.969 (Water = 1)
Density	: 0.966 g/cm ³ (25°C)
Solubility in water	: 18.5 g/100 ml
Solubility	: Soluble in cold water, methanol, acetone.
LogKow	: -0.1
Vapour/gas density	: 2 (Air = 1)
Molecular Weight	: 59.08 g/mole

10. Stability and reactivity

Stability	: Stable under recommended storage and handling conditions (see section 7). In case of incorrect use: Fire/Explosion Hazards.
Conditions to Avoid	: Keep away from heat, sparks and flame. Exposure to sources of heat, sources of ignition, open flame.
Materials to avoid	: Oxidizing substances. Acids. metals.
Hazardous decomposition products	: nitrogen oxides (NOx), carbon monoxide.

11. Toxicological information

Acute toxicity

Chemical name	Test	Species	Route	Result
Acetaldehydoxim	LD50	Rat	Oral	740 mg/kg
	LD50	Rat	Dermal	300 to 1000 mg/kg
	LC50	Rat	INHALATION	8.8 mg/l (4 hours)

Chronic toxicity	: Not available.
Skin irritation	: Non-irritant for skin.
Eye irritation	: Hazardous in case of eye contact (irritant).
Mutagenic Effects	: Nonmutagenic for bacteria and/or yeast.

Note: See section 4 for effects and symptoms

12. Ecological information

Ecotoxicity Data

Chemical name	Test	Period	Result
Acetaldehydoxim	Pimephales promelas (LC50)	96 hours	76 mg/l
	Fish (LC50)	96 hours	>100 mg/l
	Daphnia (EC50)	48 hours	>100 mg/l
	Algae (IC50)	72 hours	>100 mg/l

Mobility : For data on physical state, solubility, vapour pressure and logKow see section 9.

Persistence/degradability

Biodegradable/OECD : Readily biodegradable.

Bioaccumulative potential : This product shows a low bioaccumulation potential.

13. Disposal considerations

Methods of disposal (Waste of residues; Contaminated packaging) : Waste must be disposed of in accordance with national and local environmental regulations. Controlled biodegradation in waste water treatment is possible.

14. Transport information

GENERAL INFORMATION

UN number : UN2332
Proper shipping name : ACETALDEHYDE OXIME
Class : 3
Label : 3



Packing group : III

Land - Road/Railway [ADR/RID]

Tremcard code : 30S2332

Hazard identification number : 30

15. Regulatory information

EU Regulations

Hazard Symbol(s) :



Harmful

Risk Phrases :

R10- Flammable.
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R36- Irritating to eyes.

Safety Phrases :

S16- Keep away from sources of ignition - No smoking.
S23- Do not breathe vapour, spray.
S36/37- Wear suitable protective clothing and gloves.
S46- If swallowed, seek medical advice immediately and show this container or label.

Contains :

Acetaldehydoxim 203-479-6

16. Other information

Full text of R-Phrases with no. appearing in Section 2 - United Kingdom (UK) : R10- Flammable.
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R36- Irritating to eyes.

Text of classifications appearing in Section 2 - United Kingdom (UK) : Xn - Harmful
Xi - Irritant

HISTORY

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Notice to Reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

Handling of this substance or preparation is restricted to skilled personnel only.

Literature data and/or investigation reports are available at the manufacturer.