

Material Safety Data Sheet

Version 3.2
Revision Date 03/25/2009
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : *N,N*-Dimethylacetamide

Product Number : 38839
Brand : Sigma-Aldrich

Company : Sigma-Aldrich Canada, Ltd
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CANADA

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C_4H_9NO
Molecular Weight : 87.12 g/mol

| CAS-No. | EC-No. | Index-No. | Concentration |
|------------------------------|-----------|--------------|---------------|
| N,N-Dimethylacetamide | | | |
| 127-19-5 | 204-826-4 | 616-011-00-4 | - |

3. HAZARDS IDENTIFICATION**Emergency Overview****Target Organs**

Liver, Kidney, Central nervous system, Bone marrow, Testes., Thymus.

WHMIS Classification

| | | |
|-----|--------------------|----------------------------|
| B3 | Combustible Liquid | Combustible Liquid |
| D1A | | Highly toxic by inhalation |
| D2A | | Teratogen |
| D2B | | Reproductive hazard |
| | | Moderate eye irritant |

HMIS Classification

Health Hazard: 2
Chronic Health Hazard: *
Flammability: 2
Physical hazards: 1

NFPA Rating

Health Hazard: 2
Fire: 2
Reactivity Hazard: 1

Potential Health Effects

| | |
|-------------------|---|
| Inhalation | May be harmful if inhaled. Causes respiratory tract irritation. |
| Skin | Harmful if absorbed through skin. Causes skin irritation. |
| Eyes | Causes eye irritation. |
| Ingestion | May be harmful if swallowed. |

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point 70 °C (158 °F) - closed cup

Ignition temperature 490 °C (914 °F)

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas. hygroscopic

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value | Control parameters | Update | Basis |
|-----------------------|--|--------|--------------------|------------|---|
| N,N-Dimethylacetamide | 127-19-5 | TWA | 10 ppm | 2006-11-29 | Canada. British Columbia OEL |
| Remarks | Adverse reproductive effect Contributes significantly to the overall exposure by the skin route. | | | | |
| | | TWAE V | 10 ppm 36 mg/m3 | 2005-12-17 | Canada. Ontario OELs |
| | Skin | | | | |
| | | TWA | 10 ppm 36 mg/m3 | 2007-01-01 | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| | Substance may be readily absorbed through intact skin | | | | |
| | | TWAE V | 10 ppm 36 mg/m3 | 2006-12-29 | Canada. Quebec OELs |
| | Skin (percutaneous) | | | | |

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--------|---------------|
| Form | liquid, clear |
| Colour | colourless |
| Odour | Ammonia odor |

Safety data

| | |
|---|---|
| pH | 4 at 200 g/l at 20 °C (68 °F) |
| Melting point | -20 °C (-4 °F) |
| Boiling point | 164.5 - 166 °C (328.1 - 331 °F) |
| Flash point | 70 °C (158 °F) - closed cup |
| Ignition temperature | 490 °C (914 °F) |
| Lower explosion limit | 1.8 %(V) |
| Upper explosion limit | 11.5 %(V) |
| Vapour pressure | 3 hPa (2 mmHg) at 25 °C (77 °F) 5 hPa (4 mmHg) at 38 °C (100 °F) |
| Density | 0.937 g/mL at 25 °C (77 °F) |
| Water solubility | completely miscible |
| Partition coefficient: n-octanol/water | log Pow: -0.77 |
| Relative vapour density | 3.01 - (Air = 1.0) |

10. STABILITY AND REACTIVITY**Storage stability**

hygroscopic Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

LD50 Oral - rat - 4,300 mg/kg

LC50 Inhalation - rat - 1 h - 2475 ppm

Remarks: Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

LD50 Dermal - rabbit - 2,240 mg/kg

Irritation and corrosion

Eyes - rabbit - Mild eye irritation

Sensitisation

no data available

Chronic exposure

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

May cause congenital malformation in the fetus.

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Signs and Symptoms of Exposure

impaired judgment, emotional instability, toxic psychosis, nystagmus, dysarthria, Ataxia.

Potential Health Effects

| | |
|----------------------|---|
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| Ingestion | May be harmful if swallowed. |
| Target Organs | Liver, Kidney, Central nervous system, Bone marrow, Testes., Thymus., |

Additional Information

RTECS: AB7700000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability Result: > 90 % - Readily biodegradable.

Ecotoxicity effects

Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - > 500 mg/l - 96 h

Toxicity to daphnia
and other aquatic
invertebrates. EC50 - Daphnia magna (Water flea) - > 500 mg/l - 48 h

Toxicity to algae EC50 - Scenedesmus subspicatus - > 500 mg/l - 72 h

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

NA-Number: 1993 Class: CBL

Packing group: III

Proper shipping name: Combustible liquid, n.o.s. (N,N-Dimethylacetamide)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

DSL Status

All components of this product are on the Canadian DSL list.

WHMIS Classification

| | | |
|-----|--------------------|----------------------------|
| B3 | Combustible Liquid | Combustible Liquid |
| D1A | | Highly toxic by inhalation |
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| D2B | | Reproductive hazard |
| | | Moderate eye irritant |

16. OTHER INFORMATION

Further information

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