
Material Safety Data Sheet

Product Name	<u>N, N-Dimethylacetamide</u>
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:**Product Description:** N, N-Dimethylacetamide**Synonyms:** Dimethyl Acetamide**CAS-No:** 127-19-5**EC-No.:** 204-826-4**Molecular Formula:** C₄ H₉NO

REACH Registration No: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

1.2. Relevant identified uses of the substance or mixture and uses advised against:**Recommended Use:** Chemical for synthesis**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad,
Email: info@finarchemicals.com
Web: www.finarchemicals.com
- **E-Mail Address** safety@finarchemicals.com; info@finarchemicals.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717
- Registered office No: +91 - 79 - 40040085

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SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Category 4, Inhalation, H332

Acute toxicity, Category 4, Dermal, H312

Eye irritation, Category 2, H319

Reproductive toxicity, Category 1B, H360D

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label Elements:**Labeling according Regulation (EC) No 1272/2008****Pictogram****Signal word****Danger****Hazard statement(s)**

H360D May damage the unborn child.

H312 + H332 Harmful in contact with skin or if inhaled

H319 Causes serious eye irritation.

Precautionary statement(s)

Prevention

P201 Obtain special instructions before use.

Response

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

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Reduced labelling (≤ 125 ml)

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Pictogram



Signal word

Warning

Hazard statement(s)

H360D May damage the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

2.3. Other Hazards:

None Known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: N, N-Dimethylacetamide

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
N, N-Dimethylacetamide	127-19-5	204-826-4	>95

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

First aider needs to protect himself.

- **If Inhalation**

Move to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration

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- **If Breathing Stop**

Immediately apply artificial respiration, if necessary oxygen. Immediately call in physician.

- **If Contact with skin**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

- **In case of eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required.

- **If swallowed**

Immediately make victim drink water (two glasses at most). Consult a physician.

Subsequently administer: activated charcoal (20 - 40 g in 10% slurry).

4.2. Most important symptoms and effects, both acute and delayed:

Irritant effects

Cough, Shortness of breath, Nausea, Vomiting, inebriation, muscle twitching, hallucinations, narcosis, Coma

4.3. Indication of any immediate medical attention and special treatment needed:

Laxative: Sodium sulfate (1 tablespoon/1/4 l water).

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable Extinguishing Media- Foam, dry chemical, or carbon dioxide.

Unsuitable extinguishing media- For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture:

Combustible.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

Fire may cause evolution of: nitrogen oxides, nitrous gases

5.3. Advice for firefighters:

Special protective equipment for fire-fighters

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Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further Information:

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

6.2. Environmental precautions:

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly.

Clean up affected area.

6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling:**

Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Do not ingest. Use spark-proof tools and explosion-proof equipment.

7.2. Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep under nitrogen.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Dimethyl acetamide	TWA: 10 ppm Skin	(Vacated) TWA: 10 ppm (Vacated) TWA: 35 mg/m3 Skin TWA: 10 ppm TWA: 35 mg/m3	IDLH: 300 ppm TWA: 10 ppm TWA: 35 mg/m3	TWA: 10 ppm TWA: 35 mg/m3 STEL: 15 ppm STEL: 50 mg/m3

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

8.2. Exposure Controls:

- Appropriate Engineering Controls:**

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment:

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

- **Eye & Face Protection-**

Safety goggles

- **Hand Protection -**

Full contact: -

- Glove Material: Butyl Rubber
- Glove Thickness: 0.7 mm
- Break Through Time: >480 min

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Other Protective equipment-

Flame retardant antistatic protective clothing.

- Respiratory Protection-

Required when vapours/aerosols are generated.

Recommended Filter type: Filter A- (P3)

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

- Environmental Exposure Controls-

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

- **Appearance:** Colorless
- **Physical State:** Liquid
- **Odor:** Amine-like
- **Odor Threshold:** 44.4 ppm
- **pH:** ca. 4 at 200 g/l 20°C
- **Melting Point:** -20°C
- **Critical Temperature:** No data available
- **Vapor Pressure:** 1.76 hPa at 20°C
- **Relative Vapor Density:** 3.01
- **Density:** 0.94 g/cm³ at 20°C
- **Ignition Temperature:** 400°C / 490 °C
- **Decomposition Temperature:** No data available
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Evaporation Rate:** <0.17 (Butyl Acetate = 1.0)
- **Viscosity:** 1.02 mPa.s 20°C
- **Water/Oil Dist. Co eff.:** No data available
- **Ionicity (in Water):** No data available

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- **Partition coefficient; n-octanol/water:** No data available
- **Lower Explosion Limit:** 1.7% (V)
- **Upper Explosion Limit:** 11.5% (V)
- **Boiling Point/Range:** 165°C - 166°C
- **Flash Point:** 64°C
- **Specific Gravity:** 0.94 g/cm³
- **Water Solubility:** >1000 g/l at 20°C

9.2. Other information:**Molecular Formula:** C₄H₉NO**Molecular Weight:** 87.12**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

Forms explosive mixtures with air on intense heating.

10.2. Chemical stability:

The product is chemically stable under standard ambient conditions (room temperature).

10.3. Possibility of hazardous reactions:

Violent reactions possible with: Strong oxidizing agents, Halogenated hydrocarbon, nitrates, tetrachloromethane, Aldehydes, Strong acids

10.4. Conditions to avoid:

Incompatible products. Heat, flames and sparks. Exposure to moisture. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials:

Strong oxidizing agents, Aldehydes, Peroxides, Strong acids

10.6. Hazardous decomposition products:

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x)

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects:**

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Acute Oral toxicity

LD50 Rat: 5,830 mg/kg

OECD Test Guideline 401

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute Inhalation toxicity

Acute toxicity estimate: 11.1 mg/l; vapour

Expert judgement

Symptoms: Possible damages:, mucosal irritations, Cough, Shortness of breath absorption

Acute Dermal toxicity

Acute toxicity estimate: 1,100.1 mg/kg

Expert judgement

absorption

Skin corrosion/irritation

Rabbit

Result: Slight irritation

OECD Test Guideline 404

Serious eye damage/eye irritation

Rabbit

Result: irritating

OECD Test Guideline 405

Causes serious eye irritation.

Respiratory or skin sensitization

Sensitisation test: Guinea pig

Result: negative

(ECHA)

Germ cell mutagenicity

Genotoxicity in vivo

Chromosome aberration test

Rat

male and female

inhalation (vapour)

Bone marrow

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Result: negative

Method: OECD Test Guideline 475

Chromosome aberration test

Mouse

male

Intraperitoneal injection

Result: negative

Method: OECD Test Guideline 478

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

Mutagenicity (mammal cell test): chromosome aberration.

Human lymphocytes

Result: negative

Method: OECD Test Guideline 473

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

CMR effects

Teratogenicity:

May damage the unborn child.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

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11.2 Further Information

After absorption of toxic quantities: Nausea, Vomiting, inebriation, muscle twitching, hallucinations, Diarrhoea, lack of appetite, narcosis, Coma

Damage to: Liver, Kidney, Central nervous system

This substance should be handled with particular care.

SECTION 12: ECOLOGICAL INFORMATION**12.1. Toxicity:**

Toxicity to fish:

Static test LC50 *Leuciscus idus* (Golden orfe): > 500 mg/l; 96 h

DIN 38412 T15

Toxicity to daphnia and other aquatic invertebrates:

EC50 *Daphnia magna* (Water flea): > 500 mg/l; 48 h

DIN 38412

Toxicity to algae:

IC50 *Desmodesmus subspicatus* (green algae): > 500 mg/l; 72 h

DIN 38412

Toxicity to bacteria

EC50 Bacteria: > 2,000 mg/l; 30 min

Robra-Test

12.2 Persistence and degradability:

Biodegradability

> 90 %; 28 d

OECD Test Guideline 302B

Easily eliminable.

12.3 Bioaccumulate potential:

Partition coefficient: n-octanol/water

log Pow: 0.77 / 0.8

(experimental)

Bioaccumulation is not expected.

12.4 Mobility in soil:

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No data available

12.5 Results of PBT and vPvB assessment:

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

12.6 Other adverse effects:

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	Not classified as dangerous in the meaning of transport regulations.		
14.2 Proper shipping name	Not classified as dangerous in the meaning of transport regulations		
14.3 Class	Not classified as dangerous in the meaning of transport regulations		
14.4 Packing group	Not classified as dangerous in the meaning of transport regulations		
14.5 Environmentally hazardous	Not classified as dangerous in the meaning of transport regulations		
14.6 Special precautions for user	Not classified as dangerous in the meaning of transport regulations		
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code			
Not Relevant			

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National Legislation

Storage class 6.1 C

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15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

- H312 Harmful in contact with skin.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H360D May damage the unborn child.

Training advice

Provide adequate information, instruction, and training for operators.

Pictogram



Signal word

Danger

Hazard statement(s)

- H227 Combustible liquid.
- H312 + H332 Harmful in contact with skin or if inhaled
- H319 Causes serious eye irritation.
- H360 May damage fertility or the unborn child.

Precautionary statement(s)

Prevention

P201 Obtain special instructions before use.

Response

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

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P308 + P313 IF exposed or concerned: Get medical advice/ attention.

References: Not available

Created: 10/07/2020

Disclaimer:

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