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:** C₄H₉NO

**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](http://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 – 4004085
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)
Material Safety Data Sheet

Product Name | N, N-Dimethylacetamide

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:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>EC-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>N, N-Dimethylacetamide</td>
<td>127-19-5</td>
<td>204-826-4</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

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.
• **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
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. Chemizorb®). 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.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl acetamide</td>
<td>TWA: 10 ppm Skin</td>
<td>(Vacated) TWA: 10 ppm Skin</td>
<td>IDLH: 300 ppm TWA: 10 ppm</td>
<td>TWA: 10 ppm TWA: 35 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA: 35 mg/m3</td>
<td>TWA: 35 mg/m3</td>
<td>TWA: 35 mg/m3</td>
<td>STEL: 35 mg/m3 STEL: 50 mg/m3</td>
</tr>
</tbody>
</table>

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
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
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:

10.5. Incompatible materials:
Strong oxidizing agents, Aldehydes, Peroxides, Strong acids

10.6. Hazardous decomposition products:
Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
Material Safety Data Sheet

<table>
<thead>
<tr>
<th>Product Name</th>
<th>N,N-Dimethylacetamide</th>
</tr>
</thead>
</table>

**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
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
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
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:
Material Safety Data Sheet

Product Name | N, N-Dimethylacetamide

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

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

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
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.

<table>
<thead>
<tr>
<th>Hazard statement(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H227</td>
<td>Combustible liquid.</td>
</tr>
<tr>
<td>H312 + H332</td>
<td>Harmful in contact with skin or if inhaled</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H360D</td>
<td>May damage the unborn child.</td>
</tr>
</tbody>
</table>

Training advice
Provide adequate information, instruction, and training for operators.

Pictogram

Signal word Danger

Hazard statement(s)

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.

References: Not available

Created: 10/07/2020

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