

# SAFETY DATA SHEET

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## N,N DIMETHYLACETAMIDE

### SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

|                                |                                                                                                                                                                                                                            |
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| <b>1.1 Product identifier:</b> |                                                                                                                                                                                                                            |
| <b>CAS Number:</b>             | 127-19-5                                                                                                                                                                                                                   |
| <b>EC number:</b>              | 204-826-4                                                                                                                                                                                                                  |
| <b>1.2 SYNONYMS:</b>           | <ul style="list-style-type: none"><li>• Dimethylacetamide</li><li>• N,N-Dimethylmethanamide</li><li>• N,N-Dimethylacetamide (DMA)</li><li>• Dimethyl acetamide</li><li>• DMAc</li><li>• Acetamide, N,N-dimethyl-</li></ul> |

### SECTION 2: Hazards identification:

|                                                        |                                                                                                                                                                                                                                                        |
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| <b>2.1 Classification of the substance or mixture:</b> | Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.                                                                                                                                  |
| <b>2.2 Label elements:</b>                             | Labelling according to Regulation (EC) No 1272/2008<br>Acute toxicity, inhalation (Category 4)<br>Acute toxicity, oral (Category 4)<br>Acute toxicity, dermal (Category 4)<br>Reproductive toxicity (Category 1B)                                      |
| <b>Hazard Pictograms:</b>                              |                                                                                                                                                                    |
| <b>Signal Word:</b>                                    | Danger                                                                                                                                                                                                                                                 |
| <b>Hazard statements:</b>                              | <b>H302:</b> Harmful if swallowed.<br><b>H312:</b> Harmful in contact with skin.<br><b>H332:</b> Harmful if inhaled.<br><b>H319:</b> Causes serious eye irritation.<br><b>H373:</b> May cause damage to organs through prolonged or repeated exposure. |

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| <p><b>Precautionary Statements:</b></p> | <p><b>P202:</b> Do not handle until all safety precautions have been read and understood.</p> <p><b>P260:</b> Do not breathe dust/fume/gas/mist/vapors/spray.</p> <p><b>P261:</b> Avoid breathing dust/fume/gas/mist/vapors/spray.</p> <p><b>P264:</b> Wash hands thoroughly after handling.</p> <p><b>P270:</b> Do not eat, drink, or smoke when using this product.</p> <p><b>P280:</b> Wear protective gloves/protective clothing/eye protection/face protection</p> <p><b>P301 + P312:</b> IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.</p> <p><b>P302 + P352:</b> IF ON SKIN: Wash with plenty of water.</p> <p><b>P304 + P340:</b> IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p><b>P305 + P351 + P338:</b> IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.</p> <p><b>P312:</b> Call a POISON CENTER or doctor if you feel unwell.</p> <p><b>P403:</b> Store in a well-ventilated place.</p> <p><b>P405:</b> Store locked up.</p> <p><b>P501:</b> Dispose of contents/container in accordance with local/regional/national/international regulations</p> |
| <p><b>2.3 Other hazards:</b></p>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>Inhalation:</b></p>               | <p>can cause respiratory irritation, dizziness, headaches, and potentially damage to the lungs with prolonged or repeated exposure.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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| <b>Ingestion:</b>                              | can cause harm to internal organs, nausea, vomiting, and abdominal pain, and may lead to more severe health effects if swallowed in large amounts.                                                  |
| <b>Skin Contact:</b>                           | can cause irritation, redness, and dryness, and prolonged exposure may lead to more severe skin damage or absorption, potentially affecting internal organs.                                        |
| <b>Eye contact:</b>                            | can cause severe irritation, redness, pain, and potential damage to the cornea, leading to long-term vision issues if not properly treated.                                                         |
| <b>Chronic Exposure:</b>                       | may lead to liver and kidney damage, nervous system effects, and respiratory issues, as well as an increased risk of developing other long-term health problems with repeated or prolonged contact. |
| <b>Aggravation of pre-existing conditions:</b> | may aggravate pre-existing conditions such as liver or kidney disease, respiratory disorders, and skin conditions, as it can be toxic to these organs and systems.                                  |

### SECTION 3: Composition/information on ingredients

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| <b>3.1 Chemical characterisation:</b> | Substances                                  |
| <b>CAS No:</b>                        | Description: 127-19-5 N,N DIMETHYLACETAMIDE |
| <b>Identification number(s):</b>      | EC number: 204-826-4                        |

## SECTION 4: First aid measures

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| <b>4.1 Description of first aid measures</b>                                           |                                                                                                                                                                                                                 |
| <b>General information:</b>                                                            |                                                                                                                                                                                                                 |
| <b>After inhalation:</b>                                                               | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.                                                                                                 |
| <b>After skin contact:</b>                                                             | Remove contaminated clothing. Wash with soap and water. Consult a physician.                                                                                                                                    |
| <b>After eye contact:</b>                                                              | Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.                                                                                                                       |
| <b>After swallowing:</b>                                                               | Rinse mouth with water Immediately and drink 200-300 ml of water after ingestion. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.                           |
| <b>4.2 Most important symptoms and effects, both acute and delayed:</b>                | The most important symptoms include acute respiratory irritation, skin and eye irritation, nausea, dizziness, and, with prolonged exposure, liver and kidney damage, along with potential neurological effects. |
| <b>4.3 Indication of any immediate medical attention and special treatment needed:</b> | Treat symptomatically.                                                                                                                                                                                          |

## SECTION 5: Firefighting measures

|                                                                   |                                                           |
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| <b>5.1 Extinguishing media:</b>                                   | Carbon dioxide. Water spray. Alcohol-resistant foam.      |
| <b>5.2 Special hazards arising from the substance or mixture:</b> | Can release nitrogen oxides when heated to decomposition. |

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| <b>5.3 Advice for firefighters:</b> | Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety. |
| <b>5.4 further information:</b>     | no data available                                                                                                             |

## SECTION 6: Accidental release measures

|                                                                                 |                                                                                                                                                                                                                                                                                                |
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| <b>6.1 Personal precautions, protective equipment and emergency procedures:</b> | Use personal protective equipment.<br>Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.    |
| <b>6.2 Environmental precautions:</b>                                           | Do not enter this chemical into drains.                                                                                                                                                                                                                                                        |
| <b>6.3 Methods and material for containment and cleaning up:</b>                | Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. |

## SECTION 7: Handling and storage

|                                           |                                                                                                                                                                                                     |
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| <b>7.1 Precautions for safe handling:</b> | For use in are with adequate ventilation.<br>Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material<br>Do not use in confined spaces. |
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|                                                                          | Electrostatic discharge protection.<br>Minimize dust generation and accumulation.<br>Avoid ingestion and inhalation.<br>Heated containers should be cooled to prevent polymerization.                                                                                                    |
| <b>7.2 Conditions for safe storage, including any incompatibilities:</b> | Store in original containers.<br>Keep containers securely sealed<br>Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. |
| <b>Requirements to be met by storerooms and receptacles:</b>             | 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.                                                                                                                            |
| <b>7.3 Specific end uses:</b>                                            | no data available                                                                                                                                                                                                                                                                        |

## SECTION 8: Exposure controls/personal protection

|                                                                     |                                                                                                                            |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>8.1 Control parameters</b>                                       |                                                                                                                            |
| <b>Additional information about design of technical facilities:</b> | A system of local and general exhaust is recommended.                                                                      |
| <b>8.2 Exposure controls</b>                                        |                                                                                                                            |
| <b>Appropriate engineering controls</b>                             | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |
| <b>Personal protective equipment:</b>                               | Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.                                       |
| <b>General protective and hygienic measures:</b>                    | Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.                               |
|                                                                     | <b>Respiratory protection:</b> Required.                                                                                   |

|                             |                                                                                                                                                                                                                                                                                  |
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| <b>Protection of hands:</b> | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands. |
|                             | <b>Eye protection:</b> Required                                                                                                                                                                                                                                                  |
| <b>Protection of Body:</b>  | Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.                                                                                                                                                                                      |

## SECTION 9: Physical and chemical properties

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|------------------------------------------------------------------|------------------------|
| <b>9.1 Information on basic physical and chemical properties</b> |                        |
| <b>General Information</b>                                       |                        |
| <b>Appearance: Form:</b>                                         | Liquid                 |
| <b>Colour:</b>                                                   | Colourless             |
| <b>Odour:</b>                                                    | Ammonia-like           |
| <b>pH-value:</b>                                                 | Not determined         |
| <b>Melting point/Melting range:</b>                              | -20°C                  |
| <b>Boiling point/Boiling range:</b>                              | 165°C                  |
| <b>Flammability (solid, gaseous):</b>                            | No data available      |
| <b>Ignition temperature:</b>                                     | 370°C                  |
| <b>Decomposition temperature:</b>                                | 200°C                  |
| <b>Self-igniting:</b>                                            | None                   |
| <b>Flash point:</b>                                              | 56°C                   |
| <b>Danger of explosion:</b>                                      | None                   |
| <b>Explosion limits: Lower:</b>                                  | Not applicable         |
| <b>Explosion limits: Upper:</b>                                  | Not applicable         |
| <b>Vapour pressure:</b>                                          | 0.34 hPa at 20°C       |
| <b>Density at 20 °C:</b>                                         | 0.94 g/cm <sup>3</sup> |
| <b>Relative density:</b>                                         | 0.94                   |
| <b>Vapour density:</b>                                           | 3.1                    |
| <b>Evaporation rate:</b>                                         | Not determined         |

|                                                              |                   |
|--------------------------------------------------------------|-------------------|
| <b>Solubility in / Miscibility with-<br/>water at 20 °C:</b> | highly soluble    |
| <b>Partition coefficient:(n-<br/>octanol/water)</b>          | 0.68              |
| <b>Viscosity:</b>                                            | 1.1 mPa.s at 25°C |

## SECTION 10: Stability and reactivity

|                                                |                                                                                                                                                                  |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10.1 Reactivity</b>                         | No data available                                                                                                                                                |
| <b>10.2 Chemical stability</b>                 | This chemical is stable under storage conditions.                                                                                                                |
| <b>10.3 Possibility of hazardous reactions</b> | Hazardous polymerization may occur if methyl acrylate is exposed to high temperatures, light, or incompatible materials.                                         |
| <b>10.4 Conditions to avoid</b>                | can react with strong oxidizing agents (such as peroxides), acids, and strong bases, potentially leading to the release of heat and other hazardous by-products. |
| <b>10.5 Incompatible materials</b>             | Strong oxidizing agents, Strong acids and bases.                                                                                                                 |
| <b>10.6 Hazardous decomposition products</b>   | nitrogen oxides, carbon monoxide.                                                                                                                                |

## SECTION 11: Toxicological information

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|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>11.1 Information on toxicological effects</b> |                                                                                                                                 |
| <b>Acute Toxicity:</b>                           | <b>LD50</b> (Oral, Rat): 5830 mg/kg<br><b>LD50</b> (Dermal, Rabbit): 2100 mg/kg<br><b>LC50</b> (Inhalation Rat): 2.2 mg/l (4hr) |
| <b>Skin corrosion/Irritation:</b>                | No data available                                                                                                               |
| <b>Serious eye damage/irritation:</b>            | No data available                                                                                                               |
| <b>Respiratory damage/irritation:</b>            | No data available                                                                                                               |
| <b>Ingestion:</b>                                | No data available                                                                                                               |
| <b>Germ cell mutagenicity:</b>                   | No data available                                                                                                               |
| <b>Carcinogenicity:</b>                          | No data available                                                                                                               |



|                                                            |                              |
|------------------------------------------------------------|------------------------------|
| <b>Reproductive toxicity:</b>                              | May damage the unborn child. |
| <b>Specific target organ toxicity - single exposure:</b>   | No data available            |
| <b>Specific target organ toxicity - repeated exposure:</b> | No data available            |
| <b>Aspiration hazard:</b>                                  | No data available            |
| <b>Signs and Symptoms of Exposure:</b>                     | Refer section 2.3            |
| <b>11.2 Additional toxicological information</b>           |                              |
| <b>Biodegradability:</b>                                   | moderately Biodegradable     |

## SECTION 12: Ecological information

|                                            |                                                                                                  |
|--------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>12.1 Toxicity<br/>Aquatic toxicity:</b> | LC50(fish): 200 mg/l (96 hr)<br>EC50(daphnia): 500 mg/l (48 hr)<br>EC50(algae): 100 mg/l (72 hr) |
| <b>12.2 Persistence and degradability:</b> | Moderately Biodegradable                                                                         |
| <b>12.3 Bioaccumulative potential:</b>     | low bioaccumulative                                                                              |
| <b>12.4 Mobility in soil:</b>              | Moderate mobility                                                                                |
| <b>12.5 Other adverse effects:</b>         | No data available                                                                                |

## SECTION 13: Disposal considerations

|                                            |                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------|
| <b>13.1 Waste treatment methods</b>        |                                                                                     |
| <b>Uncleaned packaging Recommendation:</b> | dispose of in accordance with local hazardous waste regulations                     |
| <b>Recommended cleansing agents:</b>       | Soapy water, acetone or isopropanol, commercial cleaning agents, sand, vermiculite. |

## SECTION 14: Transport information

|                                                             |                   |
|-------------------------------------------------------------|-------------------|
| <b>14.1 UN-Number · ADR, ADN, IMDG, IATA:</b>               | 2265              |
| <b>14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:</b> | DIMETHYLACETAMIDE |

|                                                                 |                     |
|-----------------------------------------------------------------|---------------------|
| <b>14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :</b> | 3                   |
| <b>14.4 Packing group · ADR, IMDG, IATA:</b>                    | 3                   |
| <b>14.5 Environmental hazards:</b>                              | Not applicable      |
| <b>14.6 Special precautions for user:</b>                       | Handle responsibly. |

## SECTION 15: Regulatory information

|                                                                                                                                 |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU</b> | Directive 2012/18/EU, under that this substance is not classified in listed substance. |
| <b>Named dangerous substances:</b>                                                                                              | This substance is not listed in the annex 1 to the directive.                          |
| <b>15.2 Chemical safety assessment:</b>                                                                                         | Chemical assessment has been carried out.                                              |

## SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.