

**MATERIAL SAFETY DATA SHEET (MSDS)**  
**DIMETHYLFORMAMIDE AR (FORMDIMETHYLAMIDE)**

00118

**1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : DIMETHYLFORMAMIDE AR (FORMDIMETHYLAMIDE)

Product code : SS0111100500

 Identification of the product : N,N Dimethylformamide  
 CAS No :68-12-2  
 EC No :200-679-5  
 Annex No :616-001-00-X
Chemical formula : C<sub>3</sub>H<sub>7</sub>NO**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use : Industrial. For professional use only.

**1.3. Details of the supplier of the safety data sheet**
 Company identification : SUVCHEM  
 Chaitanya Tower, 2nd Floor, Office # 206,  
 Siddharth Nagar, S.V. Road,  
 Goregaon (West), Mumbai - 400062,  
 Maharashtra, India.  
 Contact: +91 22 28725393 / 94 / 95  
 Email ID: info@suvchem.com/care@suvchem.com
**1.4. Emergency telephone number**

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [ Office hours ]

**2. Hazards identification -DSD****2.1. Classification of the substance or mixture****Classification EC 67/548 or EC 1999/45**
 Classification : Repr. Cat. 2; R61  
 Xn; R20/21  
 Xi; R36
**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**
 Health hazards : Reproductive toxicity - Unborn Child - Category 1B - Danger (CLP : Repr. 1B) H360  
 Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319  
 Acute toxicity, dermal - Category 4 - Warning (CLP : Acute Tox. 4) H312  
 Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332

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**2. Hazards identification -DSD (continued)**
**2.2. Label elements**
**Labelling EC 67/548 or EC 1999/45**
**Symbol(s)**

**Symbol(s)**

: T : Toxic

**R Phrase(s)**

 : R61 : May cause harm to the unborn child.  
 R20/21 : Harmful by inhalation and in contact with skin.  
 R36 : Irritating to eyes.

**S Phrase(s)**

 : S53 : Avoid exposure - obtain special instructions before use.  
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

**Contains**

: N,N Dimethylformamide

**Labelling Regulation EC 1272/2008 (CLP)**
**Hazard pictograms**

**Signal words**

: Danger

**Hazard statements**

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

**Precautionary statements**
**• General**

: P201: Obtain special instructions before use.

**• Prevention**

 : P280: Wear protective gloves, protective clothing, eye protection, face protection.  
 P271: Use only outdoors or in a well-ventilated area.  
 P261: Avoid breathing dust, fume, gas, mist, vapours, spray.  
 P264: Wash thoroughly after handling.

**• Response**

 : P302+P352: IF ON SKIN : Wash with plenty of soap and water.  
 P308+P313: If exposed or concerned : get medical advice.  
 P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.  
 P363: Wash contaminated clothing before reuse.  
 P337+P313: If eye irritation persists: Get medical advice/attention.

**• Storage**

: P405: Store locked up.

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**2. Hazards identification -DSD (continued)**

- **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Special labelling** : Restricted to professional users. (Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008)
- Contains** : N,N Dimethylformamide

**2.3. Other hazards**

- Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

**3. Composition/information on ingredients**

- Substance / Preparation** : N,N Dimethylformamide  
 CAS No :68-12-2  
 EC No :200-679-5  
 Annex No :616-001-00-X  
 Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
N,N Dimethylformamide	100 %	68-12-2	200-679-5	616-001-00-X	----	Repr. Cat. 2; R61 Xn; R20/21 Xi; R36 ----- Repr. 1B _ H360D Acute Tox. 4 (skin) _ H312 Acute Tox. 4 (inhal) _ H332 Eye irrit 2 _ H319

Contains no other components or impurities which will influence the classification of the product.

**4. First aid measures**
**4.1. Description of first aid measures**

- Inhalation** : Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
- Skin contact** : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse. Wash with plenty of soap and water. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.
- Eye contact** : Get medical advice. If eye irritation persists : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Ingestion** : Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth.

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

- Symptoms relating to use** : May damage the unborn child.  
 Repeated exposure to this material can result in absorption through skin causing

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**4. First aid measures (continued)**

significant health hazard.  
 Causes serious eye irritation.  
 Danger of serious damage to health by prolonged exposure through inhalation.

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

**General information** : Never give anything by mouth to an unconscious person. If exposed or concerned : get medical advice.

**5. Fire-fighting measures**
**5.1. Extinguishing media**

**Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
**Unsuitable extinguishing media** : Do not use a heavy water stream.  
**Surrounding fires** : Use water spray or fog for cooling exposed containers.

**5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products** : Under fire conditions, hazardous fumes will be present.

**5.3. Advice for fire-fighters**

**Protection against fire** : Do not enter fire area without proper protective equipment, including respiratory protection.  
**Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

**6. Accidental release measures**
**6.1. Personal precautions, protective equipment and emergency procedures**

**For emergency responders** : Equip cleanup crew with proper protection.  
 Ventilate area.  
**For non-emergency personnel** : Evacuate unnecessary personnel.

**6.2. Environmental precautions**

**Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

**6.3. Methods and material for containment and cleaning up**

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**6. Accidental release measures (continued)**

**Clean up methods** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

**6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

**7. Handling and storage**
**7.1. Precautions for safe handling**

**Handling** : Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, vapours, spray.  
Wash thoroughly after handling. Obtain special instructions before use.

**Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage** : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

**Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

**7.3. Specific end use(s)**

**Specific end use(s)** : None.

**8. Exposure controls/personal protection**
**8.1. Exposure controls**

**Personal protection** : Avoid all unnecessary exposure.

- **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection** : Wear protective gloves.
- **Eye protection** : Chemical goggles or safety glasses.
- **Others** : When using, do not eat, drink or smoke.

**8.2. Control parameters**

**Occupational Exposure Limits** : No data available.

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**9. Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

Physical state at 20 °C

Colour

Odour

Odour threshold

pH value

Melting point [°C]

Decomposition point [°C]

Critical temperature [°C]

Auto-ignition temperature [°C]

Flammability (solid, gas)

Flash point [°C]

Boiling point [°C]

Initial boiling point [°C]

Final boiling point [°C]

Evaporation rate

Vapour pressure [20°C]

Vapour pressure mm/Hg

Vapour density

Density [g/cm<sup>3</sup>]

Relative density, gas (air=1)

Relative density, liquid (water=1)

Solubility in water [% weight]

Solubility in water

Log Pow octanol / water at 20°C

Solubility

Viscosity at 40°C [mm<sup>2</sup>/s]
**9.2. Other information**

Explosive properties	: N/A
Explosion limits - upper [%]	: 15,20%
Explosion limits - lower [%]	: 2,20%
Oxidising properties	: No data available.

**10. Stability and reactivity**
**10.1. Reactivity**

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**DIMETHYLFORMAMIDE AR (FORMDIMETHYLAMIDE)**
**10. Stability and reactivity (continued)**
**Reactivity** : Not established.

**10.2. Chemical stability**
**Chemical stability** : Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**
**Hazardous reactions** : Not established.

**10.4. Conditions to avoid**
**Conditions to avoid** : Direct sunlight. Extremely high or low temperatures.

**10.5. Incompatible materials**
**Materials to avoid** : Strong acids. Strong bases.

**10.6. Hazardous decomposition products**
**Hazardous decomposition products** : Fumes. Carbon monoxide. Carbon dioxide.

**11. Toxicological information**
**11.1. Information on toxicological effects**
**Acute toxicity**

- **Inhalation** : Harmful if inhaled.
- **Dermal** : Harmful in contact with skin.
- **Ingestion** : Based on available data, the classification criteria are not met.

**Corrosion** : Based on available data, the classification criteria are not met.

**Irritation** : Causes serious eye irritation.

**Sensitization** : Based on available data, the classification criteria are not met.

**Mutagenicity** : Based on available data, the classification criteria are not met.

**Carcinogenicity** : Based on available data, the classification criteria are not met.

**Toxic for reproduction** : May damage the unborn child.

**STOT-single exposure** : Based on available data, the classification criteria are not met.

**STOT-repeated exposure** : Based on available data, the classification criteria are not met.

**Aspiration hazard** : Based on available data, the classification criteria are not met.

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**12. Ecological information**
**12.1. Toxicity**

Toxicity information : Not established.

**12.2. Persistence - degradability**

Persistence - degradability : Biodegradable.

**12.3. Bioaccumulative potential**

Bioaccumulative potential : Not established.

**12.4. Mobility in soil**

Mobility in soil : Not established.

**12.5. Results of PBT and vPvB assessment**

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

**12.6. Other adverse effects**

Environmental precautions : Avoid release to the environment.

**13. Disposal considerations**
**13.1. Waste treatment methods**

 General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.  
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**14. Transport information**
**14.1. Land transport (ADR-RID)**

 Proper shipping name : N,N-DIMETHYLFORMAMIDE  
 UN N° : 2265  
 H.I. nr : 30  
 ADR - Class : 3



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**14. Transport information (continued)**
**Labelling - Transport** : 3 : Flammable liquid.

**ADR - Classification code** : F1

**ADR - Group** : III

**ADR - Packing instructions** : P001 R001 LP001

**ADR - Limited Quantity** : 5 L

**ADR - Tunnel code** : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

**14.2. Sea transport (IMDG) [English only]**
**Proper shipping name** : N,N-DIMETHYLFORMAMIDE

**UN N°** : 2265

**IMO-IMDG - Class or division** : 3 : Flammable liquid.

**IMO-IMDG - Packing group** : III

**IMO-IMDG - Packing instructions** : P001 LP01

**IMO-IMDG - Limited quantities** : 5 L

**IMO-IMDG - Marine pollution** : No

**EMS-Nr** : F-E S-D

**14.3. Air transport (ICAO-IATA) [English only]**
**Proper shipping name** : N,N-DIMETHYLFORMAMIDE

**UN N°** : 2265

**IATA - Class or division** : 3 : Flammable liquid.

**IATA - Packing group** : III

**IATA - Passenger and Cargo Aircraft** : ALLOWED

**- Passenger and Cargo - Packing instruction** : 355

**- Passenger and Cargo - Maximum Quantity/Packing** : 60 L

**IATA - Cargo only** : ALLOWED

**- Cargo only - Packing instruction** : 366

**- Cargo only - Maximum Quantity/Packing** : 220 L

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**14. Transport information (continued)**

IATA - Limited Quantities : 10 L  
 ERG-Nr : 3L

**15. Regulatory information**
**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Safety, health and environmental regulations/legislation specific for the substance or mixture** : Ensure all national/local regulations are observed.

**REACH Restrictions - Annex XVII** : With the exception of those listed below:  
 The components of this product are not subject to restrictions.  
 Annex XVII

**REACH Authorisation - Annex XIV** : The components of this product are not subject to authorization.

**15.2. Chemical Safety Assessment**

**Chemical Safety Assessment** : It has not been carried out.

**16. Other information**

**Revision** : Revision - See : \*

**Abbreviations and acronyms** : PBT: persistent, bioaccumulative and toxic.  
 vPvB: very persistent and very bioaccumulative

**Sources of key data used** : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**List of relevant R phrases (heading 3)** : R20/21 : Harmful by inhalation and in contact with skin.  
 R36 : Irritating to eyes.  
 R61 : May cause harm to the unborn child.

**List of full text of H-statements in section 3** : H312 : Harmful in contact with skin.  
 H319 : Causes serious eye irritation.  
 H332 : Harmful if inhaled.  
 H360U : May damage the unborn child.

**Further information** : None.

**MATERIAL SAFETY DATA SHEET (MSDS)**  
**DIMETHYLFORMAMIDE AR (FORMDIMETHYLAMIDE)**

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

**End of document**