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MATERIAL SAFETY DATA SHEET (MSDS)

DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)

Product code : SS0111202500

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 : C₃H₇NO

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

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)
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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MATERIAL SAFETY DATA SHEET (MSDS)

DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)

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

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)
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

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)
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.

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)
9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Liquid.
Colour	: Clear Colorless
Odour	: Fishy pungent & amine like
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: -61 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 4450C
Flammability (solid, gas)	: Flammable.
Flash point [°C]	: 580C
Boiling point [°C]	: 153 °C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: 0,17
Vapour pressure [20°C]	: 2.7 @ 20C
Vapour pressure mm/Hg	: N/A
Vapour density	: 2,52
Density [g/cm3]	: 0,949
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Complete.
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: 6,7
Viscosity at 40°C [mm2/s]	: N/A

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

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (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.

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)
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

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)
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

MATERIAL SAFETY DATA SHEET (MSDS)
DIMETHYLFORMAMIDE HPLC (FORMDIMETHYLAMIDE)
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 HPLC (FORMDIMETHYLAMIDE)

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

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