

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : D 21179

Product Name : N,N- Dimethyl formamaide

Manufacturer / supplier identification

Company : NICE Chemicals (P) Ltd., Cochin, India

Tel - 0484 2800212, 2802755

Contact For Information : Tel . No. – 0484 2802536 Fax : 0484 2802483

Emergency Telephone No. : 0484 2801583 Telefax No. : 0484 2802483

2. COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms: formic acid dimethyl amide

CAS-No : 68-12-2 Ec-Index No. : 616-001-00-X

EC-No. : 200-679-5 Molar mass : 73.10

Molecular formula : C₃H₇NO

3. HAZARDS IDENTIFICATION : May cause harm to unborn child. Also harmful by inhalation, and in contact with skin. Irritating to eyes.

Restricted to professional users. Attention- Avoid exposure – obtain special instructions before use.

4. FIRST AID MEASURES : After inhalation : fresh air. Keep airways free.

After skin contact: wash off with plenty of water .Remove

contaminated clothing

After eye contact: rinse out with plenty of water if pain persists

consult an eye specialist

After swallowing: Caution if victim vomits, Risk of aspiration! Keep

airways free. Summon doctor. Gastric lavage.



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5. FIRE – FIGHTING MEASURES : Suitable extinguishing media : foam, powder, CO₂.

Special risks: Combustible. Vapours heavier than air. Formation of explosible mixtures possible with air. Development of hazardous combustion gases or vapours possible in the event of fire.

The following ,may develop in the event of fire: nitrous gases.

Special protective equipment for fire fighting: Do not stay in dangerous zone without self contained breathing apparatus.

Other information: Contain escaping vapours with water.

Cool container with spray water from a safe distance.

Prevent fire fighting water from entering surface water

or ground water.

6. ACCIDENTAL RELEASE MEASURES : Procedures for cleaning / absorption :

Take up with liquid absorbent material. Forward for disposal.

Clean up affected area.

Person – related precautionary measures:

Do not inhale vapours/ aerosols. Avoid substance contact.

Environmental protection measures: Do not allow to enter sewage system.

7. HANDLING AND STORAGE : Handling : No further requirements.

Storage: Tightly closed Dry. In a well ventilated place.

At +15 °C to +25 °C. Keep away from sources of ignition and heat.

Accessible only for authorized persons.



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection: required when vapours/aerosols

are generated.

Eye protection : required Hand protection : required

Protective clothing should be selected for the working place depending on concentration and quantity of the hazardous substance handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier

Industrial hygiene: Change contaminated clothing.

Application of skin protective barrier cream recommended.

Wash hands after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid

Colour : colourless

Odour : Weakly amine like

PH value : not available

At $10 \text{ g/l H}_2\text{O} (20^{\circ}\text{C})$

Melting temperature : $\sim 60.4^{-0}$ C

Boiling temperature : 152.8 °C

Ignition temperature : $440^{\ 0}$ C

Flash point : 58° C

Explosion limits lower: 2.2 vol%

Upper: 16 vol %



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Density (20^{0} C) : 0.95 g/cm^{3}

Solubility in

water (20° C) : soluble

10. STABILITY AND REACTIVITY

Conditions to be avoided: strong heating.

Substance to be avoided: alkali metals, halogen, halides, reducing agents, tri ethyl aluminium, nitrates, metallic oxides, non-metallic oxides. Violent reactions possible with: strong oxidizing agents, halogenated hydrocarbons.

Hazardous decomposition products : in the event of fire: nitrous gases.

Further information: hygroscopic

Explosible with air in a vaporous/ gaseous state.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

LD 50 (oral, rat): 2800 mg/Kg

LD ₅₀ (dermal, rabbit): 4720 mg/Kg.

The literature data available to us do not conform with the labelling prescribed by the EC. The Ec has dossiers which have not been published.



SAFETY DATA SHEET

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Specific symptoms in animal studies:

Eye irritation test (rabbit): strong irritant effect.

Subacute to chronic toxicity:

Based on clear evidence from animal experiments there is a high risk of teratogenic effects. Pregnant women should not be exposed to the product.

Further toxicological information

After swallowing: symptoms in the gastro intestinal tract.

After contact with substance: local irritation symptoms (eyes,

skin, mucous membranes). Danger of skin

absorption.

Further data: The product should be handled with the care usual when dealing with chemicals.

12. ECOLOGICAL INFORMATION: Behaviour in environmental compartments:

Distribution : LogP(oct):~ 0.59;

Low bio accumulation potential.

Biologic degradation:

Easily eliminable.

Ecotoxic effects: Biologic effects:

Toxic for aquatic organisms.

Fish toxicity: L.idus LC_{50} : > 500 mg/l/48h;

When used properly, no impairments in the function of waste-

water- treatment plants are to be expected.



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Further ecologic data:

ThOD: 1.863 g/g

No ecological problems are to be expected when the product

is handled and used with due care and attention.

13. DISPOSAL METHOD

Product: There are no uniform EC regulations for The disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Packaging: Disposal in compliance with official Regulations. Handle contaminated packaging as In the same way as the substance itself. If not officially specified differently, non—contaminated packaging may be treated like household waste or recycled.

14. TRANSPORT INFORMATION

Transport over land

ADR/RID and GGVS/GGVE: GGVS/GGVE class: 3 Number and letter:31c

ADR/RID class: 3 Number and letter:31c

Name of material : N,N- DIMETHYL FORMAMIDE

River transport AND/ADNR: Not examined



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Sea transport IMDG :

IMDG class:3.3 UN –No.:2265 Packaging group: III

Ems : 3-06 MFAG:321

Correct technical name: N,N- DIMETHYL FORMAMIDE

Air transport

ICAO-TI and IATA-DGR:

ICAO/IATA class: 3 UN/ID-No.: 2265 Packaging group: III

Correct technical name: N,N- DIMETHYL FORMAMIDE

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : T Toxic

R- Phrases : 61-20/21-36 May cause harm to the unborn child. Also harmful by

inhalation and in contact with skin. Irritating to eyes.

S-phrases : 53-45 Avoid exposure- obtain special instructions before

use. In case of accident, or if you feel unwell, seek

medical advice immediately.

Water pollution class: 1 (slightly polluting substance)



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16. OTHER INFORMATION

Reason for alteration

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions . It does not represent a guarantee of the properties of the product.