

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Reference number: 313-200420-1 Issue date: 1/11/2022 Version: 4.0

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

1.1. Product identifier

Product form Substance name Product code Formula : Substance : DIMETHYLFORMAMIDE : 313-200420-1 : C₃H₇NO

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

| Use of the substance/mixture |
|------------------------------|
|------------------------------|

Solvent for polymers and resins
 Catalyst in chemical reactions
 Gas absorption
 Solvent for electrolytes
 Solvent in extractions
 Raw material
 Solvent in crystallization

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

Emergency number

: +90 226 815 33 00/33112

| Country | Organisation/Company | Address | Emergency number | Comment |
|---------|---|---|------------------|---|
| Turkey | Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzıssıhha Merkezi Başkanlığı | Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara | 114 | Information is provided to public and medical personnel on poisoning incidents via 114. |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

| Flammable liquids, Category 3 | H226 |
|--|------|
| Acute toxicity (dermal), Category 4 | H312 |
| Acute toxicity (inhalation:dust,mist) Category 4 | H332 |
| Serious eye damage/eye irritation, Category 2 | H319 |
| Reproductive toxicity, Category 1B | H360 |
| Full text of H- and EUH-statements: see section 16 | |

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. May damage fertility or the unborn child. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS07 GHS02 GHS08 Signal word (CLP) : Danger Hazard statements (CLP) : H226 - Flammable liquid and vapour. H312+H332 - Harmful in contact with skin or if inhaled. H319 - Causes serious eye irritation. H360 - May damage the unborn child. Precautionary statements (CLP) : P201 - Obtain special instructions before use. P302+P352 - IF ON SKIN: Wash with plenty of 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.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|---------------------------------------|------|---|
| DIMETHYLFORMAMIDE substance listed as REACH Candidate (N,N- dimethylformamide) | CAS-No.: 68-12-2 EC-No.: 200-679-5 | > 98 | Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319 Repr. 1B, H360D |

Full text of H- and EUH-statements: see section 16

3.2. Mixtures

Not applicable

| SECTION 4: First aid measures | | | |
|--|---|--|--|
| 4.1. Description of first aid measures | | | |
| First-aid measures general | : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious person. People with over sensibility problems are not allowed to work or be exposed to the product. In all cases of doubt, or when symptoms persist, seek medical attention. | | |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell. | | |
| First-aid measures after skin contact | : Rinse skin with water/shower. Take off immediately all contaminated clothing. | | |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. | | |
| First-aid measures after ingestion | : Call a poison center or a doctor if you feel unwell. | | |
| 4.2. Most important symptoms and effects, both acute and delayed | | | |
| Symptoms/effects after eye contact | : Eye irritation. | | |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

Treat symptomatically.

| SECTION 5: Firefighting measures | | | |
|---|---|--|--|
| 5.1. Extinguishing media | | | |
| Suitable extinguishing media | : Dry powder. Foam. Carbon dioxide. Water spray. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). | | |
| Unsuitable extinguishing media | : Strong water jet. | | |
| 5.2. Special hazards arising from the substance or mixture | | | |
| Fire hazard Reactivity in case of fire Hazardous decomposition products in case of fire | Flammable liquid and vapour. At high temperature may liberate dangerous gases. Toxic fumes may be released. | | |
| 5.3. Advice for firefighters | | | |
| Precautionary measures fire | : Approach from upwind. Use water spray or fog for cooling exposed containers. Keep away from combustible materials. | | |
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Cool adjacent tanks / containers / drums with water jet. Do not allow water to enter the vessels, a violent reaction may occur. Do not enter fire area without proper protective equipment, including respiratory protection. Exercise caution when fighting any chemical fire. Keep upwind. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. | | |
| Protection during firefighting Other information | Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. High temperature decomposition products are harmful by inhalation. Inhalation of vapour | | |
| | can cause breathing difficulties. | | |

| SECTION 6: Accidental release measures | | | |
|--|---|--|--|
| 6.1. Personal precautions, protective equipment and emergency procedures | | | |
| General measures | : Eliminate every possible source of ignition. Access forbidden to unauthorised personnel. Use protective clothing. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Notify authorities if product enters sewers or public waters. Use care in walking on spilled material. Do not inhale vapour. | | |
| 6.1.1. For non-emergency personnel | | | |
| Protective equipment | : Wear recommended personal protective equipment. Dust formation: dust mask. Wear suitable protective clothing, gloves and eye or face protection. | | |
| Emergency procedures | : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not touch or walk on the spilled product. Evacuate unnecessary personnel. Mark out the contaminated area with signs and prevent access to unauthorized personnel. | | |
| Measures in case of dust release | : In case of dust production: protective goggles. Dust mask. In case of vapour formation use adequate respirator. | | |
| 6.1.2. For emergency responders | | | |
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Only qualified personnel equipped with suitable protective equipment may intervene. Wear suitable protective clothing, gloves and eye/face protection. | | |
| Emergency procedures | : Avoid contact with skin and eyes. Do not touch spilled material. Evacuate unnecessary personnel. Keep away from combustible material. Keep public away from danger area. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Ventilate area. Stop leak if safe to do so. | | |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters. Do not allow to enter drains or water courses. Do not discharge into drains or waterways without neutralizing.

| 6.3. Methods and material for containment and cleaning up | | |
|---|--|--|
| For containment | Comply with the safety intructions. Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. | |
| Methods for cleaning up | Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. Clean up any spills as soon as possible, using an absorbent material to collect it. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Sweep or shovel spills into appropriate container for disposal. Minimise generation of dust. | |
| Other information | : Dispose of materials or solid residues at an authorized site. Dispose of contaminated materials in accordance with current regulations. | |

6.4. Reference to other sections

For further information refer to section 13. Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

| SECTION 7: Handling and storage | |
|---|--|
| 7.1. Precautions for safe handling | |
| Additional hazards when processed | : Use adequate ventilation to keep vapour concentrations below applicable standard. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. |
| Precautions for safe handling Hygiene measures | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid dust formation. Avoid prolonged and repeated contact with skin. Contaminated work clothing should not be allowed out of the workplace. Do not spray on an open flame or other ignition source. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Keep valves and fittings free from oil and grease. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash |
| | hands after handling the product. |
| 7.2. Conditions for safe storage, includin | g any incompatibilities |
| Technical measures | Ground/bond container and receiving equipment. Comply with applicable regulations. Containers which are opened should be properly resealed and kept upright to prevent leakage. Ensure adequate ventilation, especially in confined areas. |
| Storage conditions | : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. |
| Incompatible products | : Strong acids. Strong bases. Strong oxidizing agents. Peroxides. Explosives. |
| Incompatible materials | : Extremely high or low temperatures. |
| Heat and ignition sources | : Do not smoke. KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. |
| Information on mixed storage Storage area | Keep away from food, drink and animal feeding stuffs. Avoid: Extremely high or low temperatures. Heat and ignition sources. |

7.3. Specific end use(s)

No additional information available

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| DIMETHYLFORMAMIDE | | |
|---------------------------------------|----------|--|
| Turkey - Occupational Exposure Limits | | |
| OEL TWA | 15 mg/m³ | |
| OEL TWA [ppm] | 5 ppm | |
| OEL STEL | 30 mg/m³ | |
| OEL STEL [ppm] | 10 ppm | |

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. Consider work permit system e.g. for maintenance activities. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. In the event that dust and/or fine particles are generated with this product, it is prudent to minimize prolonged inhalation exposure to these forms not to exceed the occupational exposure limit. Measure concentrations regularly, and at the time of any change occuring in conditions likely to have consequences on workers exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Safety glasses. Heatproof clothing. Gas mask.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. Safety glasses. EN 166. Where excessive dust may result, wear goggles

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. In case of dust production: dustproof clothing. In case of dust production: head/neck protection. Where contact with eyes or skin is likely, wear suitable protection

Hand protection:

Protective gloves. EN 374

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. Dust production: dust mask with filter type P1. Where excessive vapour may result, wear approved mask

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Consumer exposure controls:

Do not eat, drink or smoke during use. Always wash hands after handling the product. Avoid contact with skin and eyes. Avoid contact during pregnancy/while nursing.

Other information:

Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

9.1. Information on basic physical and chemical properties

| Physical state | : Liquid |
|---|-----------------------------------|
| Molecular mass | : 73.09 g/mol |
| Colour | : Colorless |
| Odour | : Amine-like |
| Odour threshold | : No data available |
| pH | : 6.5 - 8.0 (20% solution) @ 25°C |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : -61 °C @ 101.325 kPa |
| Boiling point | : 153 °C @ 101.325 kPa |
| Flash point | : 58 °C @ 101.325 kPa |
| Auto-ignition temperature | : 445 °C @ 101.325 kPa |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapour pressure | : 37.7 kPa @ 25°C |
| Relative vapour density at 20 °C | : 2.52 (Air:1) |
| Relative density | : No data available |
| Density | : 0.948 - 0.952 g/cm³ @ 25 °C |
| Solubility | : Water: 1000 g/I @ 20°C |
| Partition coefficient n-octanol/water (Log Pow) | : -0.85 n-oktanol/water (@ 25°C |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 0.79 - 0.925 mPa⋅s |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Lower explosive limit (LEL) | : 2.2 vol % |
| Upper explosive limit (UEL) | : 15.2 vol % |
| 9.2. Other information | |
| 9.2. Other information | |

Surface tension mN/m @ 20°C

: 37.1

SECTION 10: Stability and reactivity 10.1. Reactivity Flammable liquid and vapour. 10.2. Chemical stability Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Peroxides. Explosives.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| The mornadon on toxicological of | |
|---|--|
| Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation) | Not classified Harmful in contact with skin. Harmful if inhaled. |
| DIMETHYLFORMAMIDE | |
| LD50 oral | 3010 mg/kg |
| LD50 dermal | 3160 mg/kg |
| LC50 Inhalation (4 hours) | 5.85 mg/l |
| Skin corrosion/irritation | : Not classified pH: 6.5 - 8.0 (20% solution) @ 25°C |
| Serious eye damage/irritation | : Causes serious eye irritation. pH: 6.5 - 8.0 (20% solution) @ 25°C |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : May damage the unborn child. |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

SECTION 12: Ecological information

12.1. Toxicity

| Ecology - general | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
|--|---|
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) Not rapidly degradable | : Not classified |
| DIMETHYLFORMAMIDE | |
| LC50 - Fish [1] | 7100 mg/l |
| EC50 - Other aquatic organisms [1] | 13100 mg/l |
| | |

12.2. Persistence and degradability

No additional information available

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| 12.3. Bioaccumulative potential | | |
|--|--------------------------------|--|
| DIMETHYLFORMAMIDE | | |
| Log Pow | -0.85 n-oktanol/water (@ 25°C) | |
| 12.4. Mobility in soil | | |
| No additional information available | | |
| 12.5. Results of PBT and vPvB assessment | | |
| DIMETHYLFORMAMIDE | | |

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

| SECTION 13: Disposal considerations | |
|--|--|
| 13.1. Waste treatment methods | |
| Regional legislation (waste) Waste treatment methods Sewage disposal recommendations Additional information | Disposal must be done according to official regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be done according to official regulations. Flammable vapours may accumulate in the container. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation. |

SECTION 14: Transport information

| ADR | IMDG | IATA | ADN | RID | | |
|---|--|---|--|--|--|--|
| 14.1. UN number | | | | | | |
| UN 2265 | UN 2265 | UN 2265 UN 2265 UN 2265 | | UN 2265 | | |
| 14.2. UN proper shippin | g name | | | | | |
| N,N- DIMETHYLFORMAMIDE | N,N- DIMETHYLFORMAMIDE | n,n-Dimethylformamide | N,N- DIMETHYLFORMAMIDE | N,N- DIMETHYLFORMAMIDE | | |
| Transport document descr | iption | | | | | |
| UN 2265 N,N- DIMETHYLFORMAMIDE, 3, III, (D/E) | UN 2265 N,N- DIMETHYLFORMAMIDE, 3, III (58°C c.c.) | UN 2265 n,n- Dimethylformamide, 3, III | UN 2265 N,N- DIMETHYLFORMAMIDE, 3, III | UN 2265 N,N- DIMETHYLFORMAMIDE, 3, III | | |
| 14.3. Transport hazard o | lass(es) | | | | | |
| 3 | 3 | 3 | 3 | 3 | | |
| | | | | | | |
| 14.4. Packing group | | | | | | |
| III | III | 111 | III | | | |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| ADR | IMDG | ΙΑΤΑ | ADN | RID | | |
|---|--|--|-----------------------------------|--------------------------------------|--|--|
| 14.5. Environmental haza | rds | | | | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No | | |
| No supplementary information | - | | | | | |
| | | | | | | |
| 4.6. Special precautions | for user | | | | | |
| Overland transport | | | | | | |
| Classification code (ADR) | : F1 | | | | | |
| imited quantities (ADR) | : 51 | | | | | |
| Excepted quantities (ADR) | : E1 | | | | | |
| acking instructions (ADR) | | 01, IBC03, LP01, R001 | | | | |
| lixed packing provisions (ADR | , | 19 | | | | |
| Portable tank and bulk containe | . , | 0 | | | | |
| Portable tank and bulk containe | er special provisions : TP | 2 | | | | |
| ADR) | | DE | | | | |
| ank code (ADR) | : LG : FL | DF | | | | |
| ehicle for tank carriage ransport category (ADR) | : FL : 3 | | | | | |
| ransport category (ADR) pecial provisions for carriage - | | 2 | | | | |
| pecial provisions for carriage - | | | | | | |
| azard identification number (K | | | | | | |
| range plates | | | | | | |
| nango platos | | 30 2265 | | | | |
| unnel restriction code (ADR) | : D/E | | | | | |
| ransport by sea | | | | | | |
| Packing instructions (IMDG) | : P0 | : P001, LP01 | | | | |
| 3C packing instructions (IMDG | i) : IBC | IBC03 | | | | |
| ank instructions (IMDG) | : T2 | | | | | |
| ank special provisions (IMDG) | : TP: | : TP2 | | | | |
| mS-No. (Fire) | : F-E | : F-E | | | | |
| mS-No. (Spillage) | : S-E | : S-D | | | | |
| towage category (IMDG) | : A | : A | | | | |
| lash point (IMDG) | | : 58°C c.c. | | | | |
| Properties and observations (IN | - | : Colourless liquid. Flashpoint: 58°C c.c. Explosive limits: 2.2% to 16% Miscible with water.May react violently with oxidizing materials. | | | | |
| Air transport | | , , | ÷ | | | |
| CA Excepted quantities (IATA) |) : E1 | | | | | |
| CA Excepted quantities (IATA) |) . E1 : Y34 | 14 | | | | |
| CA limited quantity max net qu | | | | | | |
| CA himled quantity max her quantity max | | | | | | |
| CA packing instructions (IATA) | : 601 | | | | | |
| AO packing instructions (IATA) | | | | | | |
| AO max net quantity (IATA) | , | | | | | |
| | | : 3L | | | | |
| nland waterway transport | | | | | | |
| lassification code (ADN) | : F1 | | | | | |
| imited quantities (ADN) | : 5 L | | | | | |
| xcepted quantities (ADN) | : E1 | | | | | |
| arriage permitted (ADN) | : T | | | | | |
| quipment required (ADN) | : PP, | EX, A | | | | |
| | | 01 | | | | |

Ventilation (ADN)

Number of blue cones/lights (ADN)

: VE01

: 0

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Rail transport | | |
|---|---|-------------------------|
| Classification code (RID) | : | F1 |
| Limited quantities (RID) | : | 5L |
| Excepted quantities (RID) | : | E1 |
| Packing instructions (RID) | : | P001, IBC03, LP01, R001 |
| Mixed packing provisions (RID) | : | MP19 |
| Portable tank and bulk container instructions (RID) | : | T2 |
| Portable tank and bulk container special provisions | : | TP2 |
| (RID) | | |
| Tank codes for RID tanks (RID) | : | LGBF |
| Transport category (RID) | : | 3 |
| Special provisions for carriage – Packages (RID) | : | W12 |
| Colis express (express parcels) (RID) | : | CE4 |
| Hazard identification number (RID) | : | 30 |

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII - Entry 76) : N,N-Dimethylformamide

N,N-dimethylformamide is on the REACH Candidate List

Contains a substance on the REACH candidate list in concentration \geq 0.1% or with a lower specific limit: N,N-dimethylformamide (EC 200-679-5, CAS 68-12-2)

DIMETHYLFORMAMIDE is not on the REACH Annex XIV List

DIMETHYLFORMAMIDE is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.

DIMETHYLFORMAMIDE is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Toxic for reproduction (article 57c)

15.1.2. National regulations

Germany

Water hazard class (WGK) Hazardous Incident Ordinance (12. BlmSchV) : WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 83) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

| Abbreviations and acronyms: | | |
|-----------------------------|---|--|
| ADN | ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways | |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road | |
| ATE | Acute Toxicity Estimate | |
| BCF | Bioconcentration factor | |
| BLV | Biological limit value | |
| BOD | Biochemical oxygen demand (BOD) | |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Abbreviations and acronyms: | | |
|-----------------------------|--|--|
| COD | Chemical oxygen demand (COD) | |
| DMEL | Derived Minimal Effect level | |
| DNEL | Derived-No Effect Level | |
| EC-No. | European Community number | |
| EC50 | Median effective concentration | |
| EN | European Standard | |
| IARC | International Agency for Research on Cancer | |
| IATA | International Air Transport Association | |
| IMDG | International Maritime Dangerous Goods | |
| LC50 | Median lethal concentration | |
| LD50 | Median lethal dose | |
| LOAEL | Lowest Observed Adverse Effect Level | |
| NOAEC | No-Observed Adverse Effect Concentration | |
| NOAEL | No-Observed Adverse Effect Level | |
| NOEC | No-Observed Effect Concentration | |
| OECD | Organisation for Economic Co-operation and Development | |
| OEL | Occupational Exposure Limit | |
| РВТ | Persistent Bioaccumulative Toxic | |
| PNEC | Predicted No-Effect Concentration | |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail | |
| SDS | Safety Data Sheet | |
| STP | Sewage treatment plant | |
| ThOD | Theoretical oxygen demand (ThOD) | |
| TLM | Median Tolerance Limit | |
| VOC | Volatile Organic Compounds | |
| CAS-No. | Chemical Abstract Service number | |
| N.O.S. | Not Otherwise Specified | |
| vPvB | Very Persistent and Very Bioaccumulative | |

Data sources

: 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. ECHA (European Chemicals Agency). Supplier's safety documents.

| Full text of H- and EUH-statements: | |
|--|--|
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| H226 | Flammable liquid and vapour. |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Full text of H- and EUH-statements: | | |
|-------------------------------------|------------------------------------|--|
| H312 | Harmful in contact with skin. | |
| H319 | Causes serious eye irritation. | |
| H332 | Harmful if inhaled. | |
| H360D | May damage the unborn child. | |
| Repr. 1B | Reproductive toxicity, Category 1B | |

Safety Data Sheet (SDS), EU

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