

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

| | |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description: | Dimethylformamide |
| Cat No. : | D/3841/PB17, D/3841/35, D/3841/27, D/3841/25Z, D/3841/15X, D/3841/08, D/3841/17, D/3841/21, D/3841/24, D/3841/25, D/3841/99, D/3841/DH25, D/3841/PC15 |
| Synonyms | DMF |
| Index No | 616-001-00-X |
| CAS No | 68-12-2 |
| EC No | 200-679-5 |
| Molecular Formula | C3 H7 N O |
| REACH registration number | 01-2119475605-32 |

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

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------|
| Recommended Use | Laboratory chemicals. |
| Sector of use | SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites |
| Product category | PC21 - Laboratory chemicals |
| Process categories | PROC15 - Use as a laboratory reagent |
| Environmental release category | ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates) |
| Uses advised against | No Information available |

1.3. Details of the supplier of the safety data sheet

Company

UK entity/business name
Fisher Scientific UK
Bishop Meadow Road, Loughborough,
Leicestershire LE11 5RG, United Kingdom

EU entity/business name
Thermo Fisher Scientific
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

Tel: 01509 231166
Chemtrec US: (800) 424-9300
Chemtrec EU: 001-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

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Physical hazards

Flammable liquids

Category 3 (H226)

Health hazards

Acute dermal toxicity

Category 4 (H312)

Acute Inhalation Toxicity - Vapors

Category 4 (H332)

Serious Eye Damage/Eye Irritation

Category 2 (H319)

Reproductive Toxicity

Category 1B (H360D)

Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

Hazard Statements

H226 - Flammable liquid and vapor

H312 + H332 - Harmful in contact with skin or if inhaled

H319 - Causes serious eye irritation

H360D - May damage the unborn child

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P312 - Call a POISON CENTER or doctor if you feel unwell

Additional EU labelling

Restricted to professional users

2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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3.1. Substances

| Component | CAS No | EC No | Weight % | CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 |
|-------------------|---------|-----------|----------|--------------------------------------------------------------------------------------------------------------|
| Dimethylformamide | 68-12-2 | 200-679-5 | >95 | Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Eye Irrit. 2 (H319) Repr. 1B (H360D) |

| | |
|---------------------------|------------------|
| REACH registration number | 01-2119475605-32 |
|---------------------------|------------------|

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

| | |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Ingestion | Do NOT induce vomiting. Get medical attention. |
| Inhalation | Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention. |
| Self-Protection of the First Aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |

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

Irritating to eyes. Difficulty in breathing. May be harmful if absorbed through skin:
Gastrointestinal discomfort: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

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

Notes to Physician Treat symptomatically. Symptoms may be delayed.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

Do not use water jetstream.

5.2. Special hazards arising from the substance or mixture

Flammable. Risk of ignition. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may

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travel to source of ignition and flash back. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x).

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not breathe mist/vapors/spray. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame.

Technical Rules for Hazardous Substances (TRGS) 510 Class 3
Storage Class (LGK) (Germany)

7.3. Specific end use(s)

Use in laboratories

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE** - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

| Component | The United Kingdom | European Union | Ireland |
|-------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Dimethylformamide | STEL: 10 ppm 15 min STEL: 30 mg/m ³ 15 min TWA: 5 ppm 8 hr TWA: 15 mg/m ³ 8 hr Skin | TWA: 15 mg/m ³ (8h) TWA: 5 ppm (8h) Skin STEL: 10 ppm (15min) STEL: 30 mg/m ³ (15min) STEL: 30 mg/m ³ (8h) STEL: 10 ppm (8h) | TWA: 5 ppm 8 hr. TWA: 15 mg/m ³ 8 hr. STEL: 10 ppm 15 min STEL: 30 mg/m ³ 15 min Skin |

Biological limit values

List source(s):

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

| Component | Acute effects local (Dermal) | Acute effects systemic (Dermal) | Chronic effects local (Dermal) | Chronic effects systemic (Dermal) |
|------------------------------------|-------------------------------|---------------------------------|--------------------------------|-----------------------------------|
| Dimethylformamide 68-12-2 (>95) | DNEL = 5900µg/cm ² | DNEL = 26.3mg/kg/day | DNEL = 446µg/cm ² | DNEL = 1.1mg/kg/day |

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|------------------------------------|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------|
| Dimethylformamide 68-12-2 (>95) | DNEL = 30mg/m ³ | DNEL = 30mg/m ³ | DNEL = 15mg/m ³ | DNEL = 6mg/m ³ |

Predicted No Effect Concentration (PNEC)

See values below.

| Component | Fresh water | Fresh water sediment | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture) |
|------------------------------------|---------------|--------------------------------|--------------------|------------------------------------|---------------------------|
| Dimethylformamide 68-12-2 (>95) | PNEC = 30mg/L | PNEC = 115.18mg/kg sediment dw | PNEC = 30mg/L | PNEC = 123mg/L | PNEC = 56.97mg/kg soil dw |

| Component | Marine water | Marine water sediment | Marine water intermittent | Food chain | Air |
|------------------------------------|--------------|-------------------------------|---------------------------|------------|-----|
| Dimethylformamide 68-12-2 (>95) | PNEC = 3mg/L | PNEC = 11.52mg/kg sediment dw | | | |

8.2. Exposure controls

Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use

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explosion-proof electrical/ventilating/lighting equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles (European standard - EN 166)

Hand Protection Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|----------------|-------------------|-----------------|-------------|------------------------------------------|
| Butyl rubber | > 480 minutes | 0.5 mm | EN 374 | As tested under EN374-3 Determination of |
| Neoprene | < 100 minutes | 0.45 mm | | Resistance to Permeation by Chemicals |

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g.

sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Type A Organic gases and vapours filter Brown conforming to EN14387

Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent product from entering drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | | |
|----------------------------------|-----------------------------------------------|-----------------------------------------|
| Physical State | Liquid | |
| Appearance | Colorless | |
| Odor | Rotten-egg like | |
| Odor Threshold | No data available | |
| Melting Point/Range | -61 °C / -77.8 °F | |
| Softening Point | No data available | |
| Boiling Point/Range | 153 °C / 307.4 °F | |
| Flammability (liquid) | Flammable | On basis of test data |
| Flammability (solid,gas) | Not applicable | Liquid |
| Explosion Limits | Lower 2.2 vol% Upper 16 vol% | |
| Flash Point | 58 °C / 136.4 °F | Method - Abel-Pensky (DIN 51755) |
| Autoignition Temperature | 445 °C / 833 °F | |
| Decomposition Temperature | > 350°C | |

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| | | |
|-----------------------------------------|--------------------------|-------------|
| pH | 6-8 @ 20°C | 20% aq.sol |
| Viscosity | 0.8 mPa.s at 20 °C | |
| Water Solubility | Soluble | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Component | log Pow | |
| Dimethylformamide | -1.028 | |
| Vapor Pressure | 4.9 mbar @ 20 °C | |
| Density / Specific Gravity | 0.945 | @ 20 °C |
| Bulk Density | Not applicable | Liquid |
| Vapor Density | 2.5 | (Air = 1.0) |
| Particle characteristics | Not applicable (liquid) | |

9.2. Other information

| | |
|----------------------|------------------------------------------------------|
| Molecular Formula | C3 H7 N O |
| Molecular Weight | 73.09 |
| Explosive Properties | Not explosive explosive air/vapour mixtures possible |
| Evaporation Rate | 0.17 - (Butyl Acetate = 1.0) |
| Surface tension | 36.42 mN/m (25 °C) |

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

| | |
|--------------------------|------------------------------------------|
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

10.4. Conditions to avoid

Incompatible products. Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Halogens. Halogenated compounds. Reducing Agent. . Alkali metals.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(a) acute toxicity;

| | |
|------------|------------------------------------------------------------------|
| Oral | Based on available data, the classification criteria are not met |
| Dermal | Category 4 |
| Inhalation | Category 4 |

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| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------|--------------------|-----------------------------------------|---------------------|
| Dimethylformamide | 3040 mg/kg (Rat) | 1500 mg/kg (Rabbit) 3.2 g/kg (Rat) | >5.58 mg/L/4h (Rat) |

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Category 2
Test species rabbit
Observation end point Irritating to eyes

(d) respiratory or skin sensitization;
Respiratory Based on available data, the classification criteria are not met
Skin Based on available data, the classification criteria are not met

| Component | Test method | Test species | Study result |
|--------------------------------------|----------------------------------------|--------------|-------------------|
| Dimethylformamide 68-12-2 (>95) | Guinea Pig Maximisation Test (GPMT) | guinea pig | - non-sensitising |

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met
 The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component | EU | UK | Germany | IARC |
|-------------------|----|----|---------|----------|
| Dimethylformamide | | | | Group 2A |

(g) reproductive toxicity; Category 1B
Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.
Developmental Effects May cause harm to the unborn child. Developmental effects have occurred in experimental animals.
Teratogenicity Teratogenic effects have occurred in experimental animals.

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met
Target Organs None known.

(j) aspiration hazard; Based on available data, the classification criteria are not met

Symptoms / effects,both acute and delayed May be harmful if absorbed through skin. Gastrointestinal discomfort. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity Ecotoxicity effects

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| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|
| Dimethylformamide | Pimephales promelas: LC50 = 10.6 g/L/96h Onchorhynchus mykiss: LC50 = 9.8 g/L/96h Lepomis macrochirus: LC50 = 6.3 g/L/96h | EC50 = 7500 mg/L/48h | EC50 = 7500 mg/L/96h |

| Component | Microtox | M-Factor |
|-------------------|-------------------------------------------------|----------|
| Dimethylformamide | EC50 = 2000 mg/L 5 min EC50 = 570 mg/L 240 h | |

12.2. Persistence and degradability Readily biodegradable

Persistence Persistence is unlikely.

| Component | Degradability |
|------------------------------------|-------------------------|
| Dimethylformamide 68-12-2 (>95) | 100 % (OECD 301E (21d)) |

Degradation in sewage treatment plant Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|-------------------|---------|-------------------------------|
| Dimethylformamide | -1.028 | 0.3 - 1.2 L/kg |

12.4. Mobility in soil

Surface tension

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility but will likely degrade over time. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils
36.42 mN/m (25 °C)

12.5. Results of PBT and vPvB assessment

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

12.6. Endocrine disrupting properties

Endocrine Disruptor Information

| Component | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances |
|-------------------|------------------------------------------|--------------------------------------------------|
| Dimethylformamide | Group III Chemical | |

12.7. Other adverse effects

Persistent Organic Pollutant
Ozone Depletion Potential

This product does not contain any known or suspected substance
This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

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European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN2265
14.2. UN proper shipping name N,N-DIMETHYLFORMAMIDE
14.3. Transport hazard class(es) 3
14.4. Packing group III

ADR

14.1. UN number UN2265
14.2. UN proper shipping name N,N-DIMETHYLFORMAMIDE
14.3. Transport hazard class(es) 3
14.4. Packing group III

IATA

14.1. UN number UN2265
14.2. UN proper shipping name N,N-DIMETHYLFORMAMIDE
14.3. Transport hazard class(es) 3
14.4. Packing group III

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required.

14.7. Maritime transport in bulk according to IMO instruments Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component | CAS No | EINECS | ELINCS | NLP | IECSC | TCSI | KECL | ENCS | ISHL |
|-------------------|---------|-----------|--------|-----|-------|------|----------|------|------|
| Dimethylformamide | 68-12-2 | 200-679-5 | - | - | X | X | KE-11411 | X | X |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|-------------------|---------|------|-----------------------------------------------|-----|------|------|-------|-------|
| Dimethylformamide | 68-12-2 | X | ACTIVE | X | - | X | X | X |

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

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Authorisation/Restrictions according to EU REACH

| Component | CAS No | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-------------------|---------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Dimethylformamide | 68-12-2 | - | Use restricted. See item 72. (see link for restriction details) Use restricted. See item 30. (see link for restriction details) Use restricted. See item 75. (see link for restriction details) Use restricted. See item 76. (see link for restriction details) | SVHC Candidate list - (Toxic to Reproduction, Article 57c) |

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

REACH links

<https://echa.europa.eu/substances-restricted-under-reach>
<https://echa.europa.eu/candidate-list-table>

Seveso III Directive (2012/18/EC)

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|-------------------|---------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Dimethylformamide | 68-12-2 | Not applicable | Not applicable |

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

See table for values

| Component | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|-------------------|---------------------------------------|-------------------------|
| Dimethylformamide | WGK 2 | |

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| | |
|-------------------|--------------------------------------------------------|
| Component | France - INRS (Tables of occupational diseases) |
| Dimethylformamide | Tableaux des maladies professionnelles (TMP) - RG 84 |

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H226 - Flammable liquid and vapor
H312 - Harmful in contact with skin
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H360D - May damage the unborn child

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer
Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Creation Date 03-Sep-2009
Revision Date 19-Oct-2023
Revision Summary Not applicable.

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This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

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End of Safety Data Sheet