# SAFETY DATA SHEET

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

**Creation Date** 06-Apr-2010 **Revision Date** 06-Oct-2023 **Revision Number** 9

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

### 1.1. Product identifier

| | |
|---|---|
| **Product Description:** | **Methylenedi-p-phenyl diisocyanate** |
| **Cat No. :** | **414280000; 414281000; 414285000** |
| **Synonyms** | MDI |
| **Index No** | 615-005-00-9 |
| **CAS No** | 101-68-8 |
| **EC No** | 202-966-0 |
| **Molecular Formula** | C15 H10 N2 O2 |
| **REACH registration number** | 01-2119457014-47 |

### 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 Pharmaceuticalaan 3a, 2440 Geel, Belgium

**E-mail address** begel.sdsdesk@thermofisher.com

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
**CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**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**

**Physical hazards**

Based on available data, the classification criteria are not met

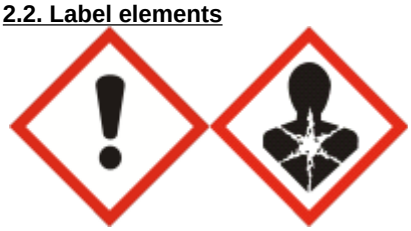
**Health hazards**

| | |
|---|---|
| Acute Inhalation Toxicity - Dusts and Mists | Category 4 (H332) |
| Skin Corrosion/Irritation | Category 2 (H315) |
| Serious Eye Damage/Eye Irritation | Category 2 (H319) |
| Respiratory Sensitization | Category 1 (H334) |
| Skin Sensitization | Category 1 (H317) |
| Carcinogenicity | Category 2 (H351) |
| Specific target organ toxicity - (single exposure) | Category 3 (H335) |
| Specific target organ toxicity - (repeated exposure) | Category 2 (H373) |

**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**
H351 - Suspected of causing cancer
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H373 - May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements**
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P362 - Take off contaminated clothing and wash before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P280 - Wear protective gloves/protective clothing/eye protection/face protection

## 2.3. Other hazards

Decomposes in contact with water
Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)
Lachrymator (substance which increases the flow of tears)
This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 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 |
|---|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | 101-68-8 | EEC No. 202-966-0 | >95 | Acute Tox. 4 (H332)<br>Carc. 2 (H351)<br>STOT RE 2 (H373)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)<br>Skin Irrit. 2 (H315)<br>Resp. Sens. 1 (H334)<br>Skin Sens. 1 (H317) |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl ]- | 5873-54-1 | EEC No. 227-534-9 | <2.5 | Acute Tox. 4 (H332)<br>Carc. 2 (H351)<br>STOT RE 2 (H373)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)<br>Skin Irrit. 2 (H315)<br>Resp. Sens. 1 (H334)<br>Skin Sens. 1 (H317) |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | Eye Irrit. 2 (H319) :: C>=5%<br>Resp. Sens. 1 (H334) :: C>=0.1%<br>Skin Irrit. 2 (H315) :: C>=5%<br>STOT SE 3 (H335) :: C>=5% | - | - |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl ]- | Eye Irrit. 2 (H319) :: C>=5%<br>Resp. Sens. 1 (H334) :: C>=0.1%<br>Skin Irrit. 2 (H315) :: C>=5%<br>STOT SE 3 (H335) :: C>=5% | - | - |

| REACH registration number | 01-2119457014-47 |
|---|---|

*Full text of Hazard Statements: see section 16*

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**General Advice** If symptoms persist, call a physician.

**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.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Inhalation** Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

**Self-Protection of the First Aider** Use personal protective equipment as required.

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

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. . Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

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

**Notes to Physician** Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

**Suitable Extinguishing Media**
Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

**Extinguishing media which must not be used for safety reasons**
No information available.

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

Thermal decomposition can lead to release of irritating gases and vapors.

**Hazardous Combustion Products**
Carbon monoxide (CO), Carbon dioxide ($CO_2$), Nitrogen oxides (NOx).

### 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.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

### 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

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

### 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

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Ensure adequate ventilation. Avoid dust formation.

**Hygiene Measures**
Handle in accordance with good industrial hygiene and safety practice.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. To maintain product quality: Keep refrigerated.

**Technical Rules for Hazardous Substances (TRGS) 510** Class 11

**Storage Class (LGK) (Germany)**

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**Exposure limits**
List source(s): **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 |
|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | STEL: 0.07 mg/m³ 15 min<br>TWA: 0.02 mg/m³ 8 hr<br>Resp. Sens. | | TWA: 0.005 ppm 8 hr. NCO<br>STEL: 0.015 ppm 15 min |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- | STEL: 0.07 mg/m³ 15 min<br>TWA: 0.02 mg/m³ 8 hr<br>Resp. Sens. | | |

**Biological limit values**

| Component | United Kingdom | European Union |
|---|---|---|
| Methylene bisphenol isocyanate (MDI) | : 1 mmol isocyanate-derived diamine/mol creatinine urine end of the period of exposure | |

**Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)**
Workers; See table for values

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---|---|---|---|---|
| Methylene bisphenol isocyanate (MDI)<br>101-68-8 ( >95 ) | DNEL = 0.1mg/m³ | | DNEL = 0.05mg/m³ | |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-<br>5873-54-1 ( <2.5 ) | DNEL = 0.1mg/m³ | | DNEL = 0.05mg/m³ | |

**Predicted No Effect Concentration (PNEC)**
See values below.

| Component | Fresh water | Fresh water sediment | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture) |
|---|---|---|---|---|---|
| Methylene bisphenol isocyanate (MDI)<br>101-68-8 ( >95 ) | PNEC = 1mg/L | | PNEC = 10mg/L | PNEC = 1mg/L | PNEC = 1mg/kg soil dw |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-<br>5873-54-1 ( <2.5 ) | PNEC = 1mg/L | | PNEC = 10mg/L | PNEC = 1mg/L | PNEC = 1mg/kg soil dw |

| Component | Marine water | Marine water | Marine water | Food chain | Air |
|---|---|---|---|---|---|

| | | sediment | intermittent | | |
|---|---|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) 101-68-8 ( >95 ) | PNEC = 0.1mg/L | | | | |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- 5873-54-1 ( <2.5 ) | PNEC = 0.1mg/L | | | | |

**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. 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 |
|---|---|---|---|---|
| Nitrile rubber<br>Neoprene<br>Natural rubber<br>PVC | See manufacturers recommendations | - | EN 374 | (minimum requirement) |

**Skin and body protection** Long sleeved clothing.

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 compatability, 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:** Particulates filter conforming to EN 143

**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:-** Particle filtering: EN149:2001
When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** No information available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

**Physical State** Solid

**Appearance** White
**Odor** Slight
**Odor Threshold** No data available

| | | |
|---|---|---|
| **Melting Point/Range** | 40 °C / 104 °F | |
| **Softening Point** | No data available | |
| **Boiling Point/Range** | 392 °C / 737.6 °F | |
| **Flammability (liquid)** | Not applicable | Solid |
| **Flammability (solid,gas)** | No information available | |
| **Explosion Limits** | No data available | |
| **Flash Point** | 202 °C / 395.6 °F | **Method -** No information available |
| **Autoignition Temperature** | 600 °C / 1112 °F | |
| **Decomposition Temperature** | No data available | |
| **pH** | No information available | |
| **Viscosity** | Not applicable | Solid |
| **Water Solubility** | Decomposes in contact with water | |
| **Solubility in other solvents** | No information available | |
| **Partition Coefficient (n-octanol/water)** | | |
| **Component** | **log Pow** | |
| Methylene bisphenol isocyanate (MDI) | 4.5 | |
| **Vapor Pressure** | <0.01 Pa @ 25 °C | |
| **Density / Specific Gravity** | 1.22 | |
| **Bulk Density** | No data available | |
| **Vapor Density** | Not applicable | Solid |
| **Particle characteristics** | No data available | |

**9.2. Other information**

| | |
|---|---|
| **Molecular Formula** | C15 H10 N2 O2 |
| **Molecular Weight** | 250.26 |
| **Evaporation Rate** | Not applicable - Solid |

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

None known, based on information available

**10.2. Chemical stability**

Stable under normal conditions. Moisture sensitive.

**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. Excess heat. Avoid dust formation. Exposure to moisture.

**10.5. Incompatible materials**

Strong oxidizing agents. Acids. Bases. Alcohols. Amines. copper. Copper alloys. Water.

**10.6. Hazardous decomposition products**

Carbon monoxide (CO). Carbon dioxide ($CO_2$). Nitrogen oxides (NOx).

## 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** Based on available data, the classification criteria are not met
**Inhalation** Category 4

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | LD50 = 31600 mg/kg ( Rat ) | - | 490 mg/m³/4H (Rat) |

**(b) skin corrosion/irritation;** Category 2

**(c) serious eye damage/irritation;** Category 2

**(d) respiratory or skin sensitization;**
**Respiratory** Category 1
**Skin** Category 1

May cause sensitization by skin contact

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

**(f) carcinogenicity;** Category 2

**(g) reproductive toxicity;** Based on available data, the classification criteria are not met

**(h) STOT-single exposure;** Category 3

**Results / Target organs** Respiratory system.

**(i) STOT-repeated exposure;** Category 2

**Route of exposure** Inhalation
**Target Organs** Respiratory system.

**(j) aspiration hazard;** Not applicable
Solid

**Other Adverse Effects** See actual entry in RTECS for complete information

**Symptoms / effects,both acute and delayed** Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

**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** Do not empty into drains. Reacts with water so no ecotoxicity data for the substance is available.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | LC50 >1000 mg/L/96h (Brachydanio rerio) | EC50 >1000 mg/L/24h (Daphnia) | |

**12.2. Persistence and degradability** Not readily biodegradable

| | |
|---|---|
| **Persistence** | based on information available, May persist. |
| **Degradability** | Decomposes in contact with water. |
| **Degradation in sewage treatment plant** | Decomposes in contact with water. |

**12.3. Bioaccumulative potential** Product does not bioaccumulate due to reaction with water; Product has a high potential to bioconcentrate

| Component | log Pow | Bioconcentration factor (BCF) |
|---|---|---|
| Methylene bisphenol isocyanate (MDI) | 4.5 | 92 dimensionless<br>200 dimensionless |

**12.4. Mobility in soil** Decomposes in contact with water Is not likely mobile in the environment. Is not likely mobile in the environment due its low water solubility and propensity to bind to soil particles

**12.5. Results of PBT and vPvB assessment** Decomposes in contact with water. Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

**12.6. Endocrine disrupting properties**

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**

**Persistent Organic Pollutant** This product does not contain any known or suspected substance

**Ozone Depletion Potential** 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.

**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 empty into drains.

## SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO** Not regulated

**14.1. UN number**
**14.2. UN proper shipping name**
**14.3. Transport hazard class(es)**
**14.4. Packing group**

**ADR** Not regulated

**14.1. UN number**
**14.2. UN proper shipping name**
**14.3. Transport hazard class(es)**
**14.4. Packing group**

**IATA** Not regulated

**14.1. UN number**
**14.2. UN proper shipping name**
**14.3. Transport hazard class(es)**
**14.4. Packing group**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | 101-68-8 | 202-966-0 | - | - | X | X | KE-12080 | X | X |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- | 5873-54-1 | 227-534-9 | - | - | X | X | KE-21471 | X | X |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---|---|---|---|---|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | 101-68-8 | X | ACTIVE | X | - | X | X | X |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- | 5873-54-1 | 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)

**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) |
|---|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | 101-68-8 | - | Use restricted. See item 56[a]. (see link for restriction details) Use restricted. See item 75. (see link for restriction details) Use restricted. See item 74. (see link for restriction details) | - |
| Benzene, | 5873-54-1 | - | Use restricted. See item | - |

| | | | | |
|---|---|---|---|---|
| 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- | | | 56[b].<br>(see link for restriction details)<br>Use restricted. See item 75.<br>(see link for restriction details) Use restricted. See item 74.<br>(see link for restriction details) | |

**REACH links**
*https://echa.europa.eu/substances-restricted-under-reach*

**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 |
|---|---|---|---|
| Methylene bisphenol isocyanate (MDI) | 101-68-8 | Not applicable | Not applicable |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- | 5873-54-1 | 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 .

**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 |
|---|---|---|
| Methylene bisphenol isocyanate (MDI) | WGK1 | Class I : 20 mg/m³ (Massenkonzentration) |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- | WGK1 | Class I : 20 mg/m³ (Massenkonzentration) |

| Component | France - INRS (Tables of occupational diseases) |
|---|---|
| Methylene bisphenol isocyanate (MDI) | Tableaux des maladies professionnelles (TMP) - RG 62 |
| Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- | Tableaux des maladies professionnelles (TMP) - RG 62 |

| Component | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|---|---|---|---|

| | | | |
|---|---|---|---|
| | **814.81)** | | |
| Methylene bisphenol isocyanate (MDI)<br>101-68-8 ( >95 ) | Prohibited and Restricted Substances | | |
| Benzene,<br>1-isocyanato-2-[(4-isocyanatophenyl)methyl]-<br>5873-54-1 ( <2.5 ) | Prohibited and Restricted Substances | | |

**15.2. Chemical safety assessment**

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted

## SECTION 16: OTHER INFORMATION

**Full text of H-Statements referred to under sections 2 and 3**
H332 - Harmful if inhaled
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351 - Suspected of causing cancer
H335 - May cause respiratory irritation
H373 - May cause damage to organs through prolonged or repeated exposure

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

| | |
|---|---|
| **Creation Date** | 06-Apr-2010 |
| **Revision Date** | 06-Oct-2023 |
| **Revision Summary** | Not applicable. |

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

**amended.** .

**.**

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

## End of Safety Data Sheet