SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

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

1.1 Product identifier

Product name: illbruck PU010

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

Identified uses: Use in rigid foams, coatings, adhesives and sealants
Uses advised against: Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Importer/Supplier/Distributor Information

Tremco CPG Netherlands B.V.
Vlietskade 1032
4241 WC Arkel
the Netherlands

Telephone: +31 183568000
Fax: +31 183568100

Contact person : msds@tremcocpg.com

National Supplier

Tremco CPG UK Limited
Coupland Road
WN2 4HT Hindley Green, WIGAN
UK

Telephone: +44 1942251400
Fax: +44 1942251410

Contact person : www.tremcocpg.eu, uk.info@tremcocpg.com

1.4 Emergency telephone number: During office hours (Mon-Fri 08:30-17:00 GMT) Tel.: +44 (0) 1942251400. Otherwise, 24h/7d it is recommended to call 111 for NHS 111 (England), NHS 24 (Scotland) and NHS Direct (Wales), or 0845 46 47 (Wales only).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Physical Hazards

Flammable aerosol	Category 1	H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated.

Health Hazards

Skin Corrosion/Irritation	Category 2	H315: Causes skin irritation.
Skin sensitiser	Category 1	H317: May cause an allergic skin reaction.
Serious Eye Damage/Eye Irritation	Category 2	H319: Causes serious eye irritation.
Acute toxicity (Inhalation - dust and mist)	Category 4	H332: Harmful if inhaled.
Respiratory sensitiser	Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Specific Target Organ Toxicity - Single Exposure	Category 3	H335: May cause respiratory irritation.
Carcinogenicity	Category 2	H351: Suspected of causing cancer.
Specific Target Organ Toxicity - Repeated Exposure	Category 2	H373: May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Signal Words: Danger

Hazard Statement(s):

H222: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.
H332: Harmful if inhaled.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317: May cause an allergic skin reaction.
H351: Suspected of causing cancer.
H335: May cause respiratory irritation.
H373: May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P251: Do not pierce or burn, even after use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P284: In case of inadequate ventilation wear respiratory protection.

Response:

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Storage:

P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Hazardous components which must be listed on the label:

Contains
diphenylmethanediisocyanate, isomers and homologues
tris(2-chloro-1-methylethyl)phosphate

Supplemental information

As from 24 August 2023 adequate training is required before industrial or professional use.
feica.eu/PUinfo
EUH204: Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Contains substance(s) under evaluation for endocrine disruption under an EU legislation:
CAS: 1244733-77-4
For further information, please refer to section 11.2.

PBT/vPvB data
Based on available data, the classification criteria are not met.

Endocrine disrupting properties-Toxicity
Based on available data, the classification criteria are not met.

Endocrine disrupting properties-Ecotoxicity
Based on available data, the classification criteria are not met.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Active substance(s) with propellant. While curing, carbon dioxide (CO2) is formed by a reaction with atmospheric humidity.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
diphenylmethanediisocyanate, isomers and homologues	>=30 - <60%	9016-87-9	618-498-9	No data available.	No data available.	#
tris(2-chloro-1-methylethyl)phosphate	>=5 - <15%	1244733-77-4	807-935-0	01-2119486772-26-xxxx;	No data available.	
dimethyl ether	>=5 - <15%	115-10-6	204-065-8	01-2119472128-37-xxxx;	No data available.	#
propane	>=2,5 - <12,5%	74-98-6	200-827-9	01-2119486944-21-xxxx;	No data available.	#
isobutane	>=2,5 - <12,5%	75-28-5		01-2119485395-27-xxxx;	No data available.	

bis(2-ethylhexyl) tetrabromophthalate	>=2,5 - <12,5%	26040-51-7	247-426-5	01-2119974586-20-xxxx;	No data available.	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).
This substance is listed as SVHC.

Classification

Chemical name	Classification	Notes
diphenylmethanediisocyanate, isomers and homologues	Classification: Skin Corr.: 2: H315; Skin Sens.: 1: H317; Eye Dam.: 2: H319; Acute Tox.: 4: H332; Resp. Sens.: 1: H334; STOT SE: 3: H335; Carc.: 2: H351; STOT RE: 2: H373 Acute toxicity, oral: LD 50: > 10.000 mg/kg Acute toxicity, inhalation: LC 50: 0,49 mg/l Acute toxicity, dermal: LD 50: > 9.400 mg/kg	None.
tris(2-chloro-1-methylethyl)phosphate	Classification: Acute Tox.: 4: H302; Carc.: 2: H351; Aquatic Chronic: 3: H412 Acute toxicity, oral: LD 50: > 500 - < 2.000 mg/kg Acute toxicity, inhalation: LC 50: > 7 mg/l Acute toxicity, dermal: LD 50: > 2.000 mg/kg	None.
dimethyl ether	Classification: Flam. Gas: 1: H220 Acute toxicity, oral: LD 50: > 2.000 mg/kg Acute toxicity, inhalation: LC 50: 164000 ppm Acute toxicity, dermal: LD 50: > 2.000 mg/kg	Note U
propane	Classification: Flam. Gas: 1: H220 Acute toxicity, oral: LD 50: > 2.000 mg/kg Acute toxicity, inhalation: LC 50: > 5 mg/l Acute toxicity, dermal: LD 50: > 2.000 mg/kg	Note U
isobutane	Classification: Flam. Gas: 1: H220 Acute toxicity, oral: LD 50: > 2.000 mg/kg Acute toxicity, inhalation: LC 50: 1.443 mg/l Acute toxicity, dermal: LD 50: > 2.000 mg/kg	Note C, Note U
bis(2-ethylhexyl) tetrabromophthalate	Classification: None known. Acute toxicity, oral: LD 50: > 5.000 mg/kg Acute toxicity, dermal: LD 50: > 2.000 mg/kg	None.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Move out of dangerous area. Move into fresh air and keep at rest. If medical advice is needed, have product container or label at hand.

Inhalation: Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. Place unconscious person on his/her side in the recovery position and ensure breathing can take place.

Skin Contact: Immediately remove contaminated clothing. Wash the skin immediately with soap and water. Wash contaminated clothing before re-use.

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if any discomfort continues.

Ingestion: When risk of unconsciousness, place and transport the victim in secured side position. Do not induce vomiting without medical advice. Rinse mouth thoroughly. Get medical attention if symptoms occur.

Personal Protection for First-aid Responders: CAUTION! First aid personnel must be aware of own risk during rescue!, General first aid, rest, warmth and fresh air.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: May cause skin and eye irritation. High vapour concentrations may cause drowsiness and irritation.

Hazards: Symptoms may be delayed. Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treating the symptoms (decontamination, checking vital functions). No specific antidote known. To prevent pulmonary edema: corticosteroid-containing metered dose inhalation.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials. Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
Unsuitable extinguishing media:	If other extinguishing agents are not available, water can be used be used; however, only in large quantities. Water can react violently with hot isocyanate.
5.2 Special hazards arising from the substance or mixture:	Material reacts with water. Most foams will react with the material and release corrosive/toxic gases. Pressurised container may explode when exposed to heat or flame.In case of fire, toxic gases may be formed.Carbon monoxide. Carbon dioxide. Nitrogen oxides. Organic compounds. Hydrogen cyanide (hydrocyanic acid).

5.3 Advice for firefighters

Special fire-fighting procedures:	Aerosol cans may explode in a fire. Water spray should be used to cool containers.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. EN 469 provides a basic level of protection for incidents with chemicals.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Keep public away from danger area. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Provide adequate ventilation. For further information, please refer to section 8.2.
6.1.1 For non-emergency personnel:	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not allow to enter drains, sewers or watercourses.
6.1.2 For emergency responders:	For further information, please refer to section 8.2.
6.2 Environmental precautions:	While curing, carbon dioxide (CO_2) is formed by a reaction with atmospheric humidity.
6.3 Methods and material for containment and cleaning up:	Collect and dispose of spillage as indicated in section 13.1. Provide adequate ventilation. After cleaning, flush away traces with water.
6.4 Reference to other sections:	Follow precautions for safe handling described in this safety data sheet. For further information, please refer to section 8.2 and 13.1.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical Measures: For further information, please refer to section 8.2.

Local/Total ventilation: Use only with adequate ventilation.

Safe handling advice: Handle and open container with care. Avoid contact with skin and eyes. Avoid inhalation of vapours and aerosol spray. Full protective clothing should be worn when handling this product. Follow precautions for safe handling described in this safety data sheet.

Contact avoidance measures: Avoid contact with flame and heat source, prevent contact with direct sunlight

7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions: Store in tightly closed original container in a well-ventilated place. Store in closed original container at temperatures between 10°C and 30°C. Observe official regulations on storing packagings with pressurised containers.

Safe packaging materials: Suitable materials: Keep only in the original container. Unsuitable materials: Keep only in the original container.

7.3 Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Chemical name	Type	Form of exposure	Exposure Limit Values		Source
diphenylmethanediisocyanate, isomers and homologues	STEL 15 minutes	as NCO		0,07 mg/m3	EH40 WEL (01 2020)
	TWA	as NCO		0,02 mg/m3	EH40 WEL (2007)
dimethyl ether	TWA		400 ppm	766 mg/m3	EH40 WEL (2007)
	STEL 15 minutes		500 ppm	958 mg/m3	EH40 WEL (01 2020)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

Chemical Identity	Parameters / Sampling Time	Exposure Limit Values	Source

diphenylmethanediisocyanate, isomers and homologues	Isocyanate-derived diamine Sampling time: At the end of the period of exposure.	1 umol/mol (Creatinine in urine)	UKEH40BMGV (01 2020)
	Isocyanate-derived diamine Sampling time: At the end of the period of exposure.	1 umol/mol (Creatinine in urine)	UKEH40BMGV (01 2020)

DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
diphenylmethanediisocyanate, isomers and homologues	Workers	Inhalation	Local, long-term; 0,05 mg/m3	
	Workers	Inhalation	Local, short-term; 0,1 mg/m3	
	General population	Inhalation	Local, short-term; 0,05 mg/m3	
	General population	Inhalation	Local, long-term; 0,025 mg/m3	
tris(2-chloro-1-methylethyl)phosphate	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Systemic, short-term; 22,6 mg/m3	Acute toxicity
	General population	Inhalation	Systemic, short-term; 5,6 mg/m3	Acute toxicity
	Workers	Dermal	Systemic, long-term; 2,91 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 8,2 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 1,45 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 2 mg/kg	Acute toxicity
	General population	Dermal	Systemic, long-term; 1,04 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 0,52 mg/kg	Repeated dose toxicity
dimethyl ether	General population	Inhalation	Systemic, long-term; 471 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 1894 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
bis(2-ethylhexyl) tetrabromophthalate	Workers	Eyes	Local effect;	No hazard identified
	General population	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Systemic, long-term; 49,4 mg/m3	
	Workers	Inhalation	Systemic, long-term; 49,4 mg/m3	
	Workers	dermal	Systemic, long-term; 14 mg/kg bw/day	
	Workers	dermal	Systemic, short-term; 70 mg/kg bw/day	
	General population	Inhalation	Systemic, long-term; 8,7 mg/m3	
	General population	Inhalation	Systemic, long-term; 43,5 mg/m3	

	General population	dermal	Systemic, long-term; 5 mg/kg bw/day	
	General population	oral	Systemic, short-term; 25 mg/kg bw/day	
	General population	oral	Systemic, short-term; 5 mg/kg bw/day	
	General population	dermal	Systemic, short-term; 25 mg/kg bw/day	

PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
diphenylmethanediisocyanate, isomers and homologues	Freshwater	3,7 ppm	
	Freshwater - intermittent	37 ppm	
	Marine water	0,37 ppm	
	Freshwater sediment	11,7 mg/kg	mg/kg dry weight
	Marine sediment	1,17 mg/kg	mg/kg dry weight
	Soil	2,33 mg/kg	mg/kg dry weight
tris(2-chloro-1-methylethyl)phosphate	Predator	11,6 mg/kg	Oral
	Sewage treatment plant	19,1 mg/l	
	Aquatic (marine water)	0,032 mg/l	
	Soil	0,34 mg/kg	Soil
	Sediment (marine water)	1,15 mg/kg	
	Aquatic (freshwater)	0,32 mg/l	
	Sediment (freshwater)	11,5 mg/kg	
dimethyl ether	Aquatic (freshwater)	0,155 mg/l	
	Soil	0,045 mg/kg	Soil
	Sediment (freshwater)	0,681 mg/kg	
	Sediment (marine water)	0,069 mg/kg	
	Aquatic (marine water)	0,016 mg/l	
	Sewage treatment plant	160 mg/l	

8.2 Exposure controls

Appropriate Engineering Controls: Observe good industrial hygiene practices.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection: Wear suitable goggles tested to EN ISO 16321.

Hand Protection: Additional Information: Gloves should be replaced regularly and if there is any sign of damage to the glove material. For prolonged or repeated contact, wearing gloves with a protection class of 5 or higher (breakthrough time more than 240 minutes according to EN374) is recommended. For brief contact, wearing gloves with protection class 3 or higher (breakthrough time greater than 60 minutes according to EN374) is recommended.
Material: Butyl rubber.
Glove thickness: 0,7 mm
Material: Nitrile rubber.
Glove thickness: 0,4 mm

Skin and Body Protection: Wear suitable protective work clothing tested to EN ISO 13688.

Respiratory Protection:	In case of inadequate ventilation, use respiratory protection. Wear suitable respiratory equipment tested to EN 143. For further guidance, please refer to HSE HSG53 "Respiratory Protective Equipment at work - A Practical Guide".
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash at the end of each work shift and before eating, smoking or using the toilet.
Environmental Controls:	Avoid release to the environment. For further information, please refer to section 6. (*) changed from previous version

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	Aerosol
Form:	Flammable aerosol.
Colour:	Various
Odour:	Characteristic
Odour Threshold:	Not determined.
Melting Point:	Not applicable: aerosol spray can.
Boiling Point:	Not applicable: aerosol spray can.
Flammability:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	18,6 %(V)
Explosive limit - lower:	1,8 %(V)
Flash Point:	Not applicable: aerosol spray can.
Auto-ignition temperature:	No data available.
Decomposition Temperature:	Not applicable: aerosol spray can.
pH:	Not applicable: aerosol spray can. Material reacts with water.

Viscosity

Dynamic viscosity:	Not applicable: aerosol spray can.
Kinematic viscosity:	Not applicable: aerosol spray can.
Flow Time:	Not determined.

Solubility(ies)

Solubility in Water:	Reacts with water.
Solubility (other):	Not applicable: aerosol spray can.
Dissolution Rate:	No data available.
Partition coefficient (n-octanol/water):	Not determined.
Dispersion Stability:	No data available.
Vapour pressure:	5.200 hPa
Relative density:	No data available.
Density:	Not applicable: aerosol spray can.
Bulk density:	No data available.
Relative vapour density:	Not applicable.

9.2 Other information

Self-ignition:	Not applicable
Reactions with Water/Air:	Water.
Evaporation Rate:	Not applicable: aerosol spray can.
VOC content:	180 g/l 17,5 %

SECTION 10: Stability and reactivity

10.1	**Reactivity:**	Not applicable: aerosol spray can. Material is stable under normal conditions.
10.2	**Chemical stability:**	Material is stable under normal conditions.
10.3	**Possibility of hazardous reactions:**	Extremely flammable aerosol - contents under pressure. The product reacts with water and will generate heat. For further information, please refer to section 5.2.
10.4	**Conditions to avoid:**	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Shocks and physical damage.
10.5	**Incompatible Materials:**	Water, steam, water mixtures. Avoid contact with oxidisers or reducing agents.
10.6	**Hazardous decomposition products:**	For further information, please refer to section 5.2.

SECTION 11: Toxicological information

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

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix, > 2.000 mg/kg, Not classified for acute toxicity based on available data.

Components:

diphenylmethanediisocyanate, isomers and homologues	LD 50, Rat, Male, > 10.000 mg/kg
tris(2-chloro-1-methylethyl)phosphate	LD 50, Rat, > 500 - < 2.000 mg/kg, 1 = reliable without restrictions, according to specific guideline, Key study
dimethyl ether	LD 50, Rat, > 2.000 mg/kg
propane	LD 50, No data., > 2.000 mg/kg
isobutane	LD 50, No data., > 2.000 mg/kg, No further relevant information available.
bis(2-ethylhexyl) tetrabromophthalate	LD 50, Rat, > 5.000 mg/kg, 1 = reliable without restrictions, according to specific guideline

Dermal

Product: ATEmix, > 2.000 mg/kg, Not classified for acute toxicity based on available data.

Components:

diphenylmethanediisocyanate, isomers and homologues	LD 50, Rabbit, Female, Male, > 9.400 mg/kg

tris(2-chloro-1-methylethyl)phosphate	LD 50, Rat, > 2.000 mg/kg, 1 = reliable without restrictions, according to specific guideline, Experimental result, Key study
dimethyl ether	LD 50, Rabbit, > 2.000 mg/kg
propane	LD 50, No data., > 2.000 mg/kg
isobutane	LD 50, No data., > 2.000 mg/kg, No further relevant information available.
bis(2-ethylhexyl) tetrabromophthalate	LD 50, Rabbit, Female, Male, > 2.000 mg/kg

Inhalation

Product: ATEmix, > 1,5 mg/l, Dust and mist, Harmful if inhaled.

Components:

diphenylmethanediisocyanate, isomers and homologues	LC 50, Rat, Female, Male, 4 h, 0,49 mg/l, Dust and mist
tris(2-chloro-1-methylethyl)phosphate	LC 50, Rat, 4 h, > 7 mg/l, Aerosol, Yes, 1 = reliable without restrictions, Aerosol, Key study
dimethyl ether	LC 50, Rat, 4 h, 164000 ppm, Gas, 2 = reliable with restrictions, Gas, Key study
propane	LC 50, No data., > 5 mg/l
isobutane	LC 50, Rat, 15 min, 1.443 mg/l, Inhalation, 2 = reliable with restrictions, Inhalation, Key study

Repeated dose toxicity

Product: No information about adverse effects due to exposure.

Components:

diphenylmethanediisocyanate, isomers and homologues	No further relevant information available.
tris(2-chloro-1-methylethyl)phosphate	NOAEL Rat, Female, Male, Oral, 85 mg/kg, Oral Experimental result, Supporting study
bis(2-ethylhexyl) tetrabromophthalate	NOAEL Rat, Female, Male, Oral, 223,4 mg/kg

Skin Corrosion/Irritation

Product: Causes skin irritation.

Components:

diphenylmethanediisocyanate, isomers and homologues	Rabbit, Irritating to skin.
tris(2-chloro-1-methylethyl)phosphate	Rabbit, None.
bis(2-ethylhexyl) tetrabromophthalate	not classified (CLP (1272/2008)), in vivo, Rabbit, 24 - 72 h, Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: Causes serious eye damage.

Components:

diphenylmethanediisocyanate, isomers and homologues	Rabbit, Moderately irritating to the eyes.

tris(2-chloro-1-methylethyl)phosphate	Not Classified, Rabbit, None.
bis(2-ethylhexyl) tetrabromophthalate	Not Classified, in vivo, Rabbit, 24 - 72 h

Respiratory or Skin Sensitisation

Product: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Components:

diphenylmethanediisocyanate, isomers and homologues	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
tris(2-chloro-1-methylethyl)phosphate	Mouse, None.
bis(2-ethylhexyl) tetrabromophthalate	Skin sensitisation:, in vivo, Guinea pig, Not Classified

Carcinogenicity

Product: Suspected of causing cancer.

Components:

diphenylmethanediisocyanate, isomers and homologues	Suspected of causing cancer.
tris(2-chloro-1-methylethyl)phosphate	Suspected of causing cancer. Ingestion

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

In vitro

Product: No data recorded.

In vivo

Product: No data recorded.

Reproductive toxicity

Product: Based on available data, the classification criteria are not met.

Components:

diphenylmethanediisocyanate, isomers and homologues	No data recorded.
tris(2-chloro-1-methylethyl)phosphate	No data recorded.

Specific Target Organ Toxicity - Single Exposure

Product: Inhalation - dust and mist, Respiratory system, May cause respiratory irritation.

Components:

diphenylmethanediisocyanate, isomers and homologues	Inhalation - dust and mist, Respiratory system, May cause respiratory irritation.
tris(2-chloro-1-methylethyl)phosphate	Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Product: Inhalation - dust and mist, Respiratory system, May cause damage to organs through prolonged or repeated exposure.

Components:

diphenylmethanediisocyanate, isomers and homologues	Inhalation - dust and mist, Respiratory system, May cause damage to organs through prolonged or repeated exposure.
tris(2-chloro-1-methylethyl)phosphate	Based on available data, the classification criteria are not met.

Aspiration Hazard

Product: Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

Product: Based on available data, the classification criteria are not met.;

Components:

diphenylmethanediisocyanate, isomers and homologues	Does not have endocrine disrupting properties.;
tris(2-chloro-1-methylethyl)phosphate	List II, https://edlists.org/the-ed-lists/;

Other information

Product: No further relevant information available.;

SECTION 12: Ecological information

12.1 Toxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data on possible environmental effects have been found.
Components:	
diphenylmethanediisocyanate, isomers and homologues	LC 50, Danio rerio, 96 h, > 1.000 mg/lStatic, No negative effects on the aquatic environment are known.
tris(2-chloro-1-methylethyl)phosphate	LC 50, Danio rerio, 96 h, 56,2 mg/lStatic
dimethyl ether	LC 50, Fish, 96 h, 1.783,04 mg/lQSAR
propane	No further relevant information available.
isobutane	LC 50, Fish, 96 h, 49,9 mg/l
bis(2-ethylhexyl) tetrabromophthalate	LC 50, Oncorhynchus mykiss, 96 h, > 1.000 mg/lStatic

Aquatic Invertebrates

Product:	No data on possible environmental effects have been found.
Components:	
diphenylmethanediisocyanate, isomers and homologues	EC 50, Water flea (Daphnia magna), 24 h, > 1.000 mg/lStatic, No data on possible environmental effects have been found.
tris(2-chloro-1-methylethyl)phosphate	EC 50, Daphnia magna, 48 h, 131 mg/lStatic, Experimental result, Key study
dimethyl ether	EC 50, Daphnia magna, 48 h, > 4,4 g/lStatic, Experimental result, Key study
propane	No further relevant information available.
bis(2-ethylhexyl) tetrabromophthalate	EC 50, Daphnia magna, 48 h, > 10 mg/lStatic, Experimental result, Supporting study

Toxicity to aquatic plants

Product:	No data on possible environmental effects have been found.
Components:	
tris(2-chloro-1-methylethyl)phosphate	EC 50, Algae (Pseudokirchneriella subcapitata), 72 h, 82 mg/l
isobutane	EC 50, Alga, 96 h, 19,4 mg/l
bis(2-ethylhexyl) tetrabromophthalate	EC 50, Algae, 72 h, > 100 mg/l

Toxicity to microorganisms

Product:	No data on possible environmental effects have been found.
Components:	
tris(2-chloro-1-methylethyl)phosphate	EC 50, Bacteria, 3 h, 784 mg/l
bis(2-ethylhexyl) tetrabromophthalate	EC 50, Bacteria, 3 h, > 1.000 mg/l

Chronic hazards to the aquatic environment:

Fish

Product:	No data on possible environmental effects have been found.
Components:	
bis(2-ethylhexyl) tetrabromophthalate	LC 50, Oncorhynchus mykiss, 96 h, > 1.000 mg/l

Aquatic Invertebrates

Product:	No data on possible environmental effects have been found.
Components:	
tris(2-chloro-1-methylethyl)phosphate	EC 50, Daphnia magna, 40 mg/l, semi-static, experimental result Experimental result, Key study
bis(2-ethylhexyl) tetrabromophthalate	NOEC, Daphnia magna, >= 1 mg/l, semi-static, experimental result Experimental result, Key study

Toxicity to microorganisms

Product:	No data on possible environmental effects have been found.
Components:	
tris(2-chloro-1-methylethyl)phosphate	EC 50, Bacteria, 3 h, 784 mg/l
bis(2-ethylhexyl) tetrabromophthalate	EC 50, Bacteria, 3 h, > 1.000 mg/l

12.2 Persistence and degradability

Biodegradation

Product:	The product is not readily biodegradable.
Components:	
diphenylmethanediisocyanate, isomers and homologues	0 %, 28 d
tris(2-chloro-1-methylethyl)phosphate	13 %, 28 d, Detected in water. Experimental result, Key study
dimethyl ether	5 %, 28 d, Detected in water. Experimental result, Key study
propane	No further relevant information available.
isobutane	100 %, 385,5 h, Detected in water. Experimental result, Key study
bis(2-ethylhexyl) tetrabromophthalate	7 %, 28 d, Detected in water. Experimental result, Key study

12.3 Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available on bioaccumulation.
Components:	
diphenylmethanediisocyanate, isomers and homologues	Carp (Cyprinus carpio), 92
tris(2-chloro-1-methylethyl)phosphate	Cyprinus carpio, 0,8 - 2,8, Aquatic sediment Experimental result, Key study
bis(2-ethylhexyl) tetrabromophthalate	Oncorhynchus mykiss, < 0,04, The product is not bioaccumulating.

Partition Coefficient n-octanol / water (log Kow)
Product: , Not determined.

12.4 Mobility in soil:

Product	Expected to partition to sediment and wastewater solids.
Components:	
diphenylmethanediisocyanate, isomers and homologues	Expected to partition to sediment and wastewater solids.
tris(2-chloro-1-methylethyl)phosphate	No further relevant information available.

12.5 Results of PBT and vPvB assessment:

Product	Based on available data, the classification criteria are not met.
Components:	

12.6 Endocrine disrupting properties:

Product:	Based on available data, the classification criteria are not met.
Components:	
diphenylmethanediisocyanate, isomers and homologues	Does not have endocrine disrupting properties.
tris(2-chloro-1-methylethyl)phosphate	List II, https://edlists.org/the-ed-lists/

12.7 Other adverse effects:

Other hazards
Product: Not regarded as dangerous for the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:	Dispose of waste and residues in accordance with local authority requirements.
Disposal methods:	This material and/or its container must be disposed of as hazardous waste.
Contaminated Packaging:	Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

European Waste Codes
Unused product: HP 3: HP 3 ‘Flammable:’ other flammable waste flammable

	aerosols, flammable self heating waste, flammable organic peroxides and flammable self reactive waste.
Unused product:	HP 4: HP 4 'Irritant — skin irritation and eye damage:' waste which on application can cause skin irritation or damage to the eye.
Unused product:	HP 5: HP 5 ' Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:' waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
Unused product:	HP 7: HP 7 'Carcinogenic:' waste which induces cancer or increases its incidence.
Unused product:	HP 13: HP 13 'Sensitising:' waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.
Unused product:	16 05 04*: gases in pressure containers (including halons) containing dangerous substances
Used product:	08 05 01*: waste isocyanates
Container:	15 01 04: metallic packaging

SECTION 14: Transport information

ADR

14.1 UN number or ID number:	UN 1950
14.2 UN proper shipping name:	AEROSOLS
14.3 Transport hazard class(es)	
Class:	2
Label(s):	2.1
Classification Code:	5F
Hazard No. (ADR):	–
Tunnel restriction code:	(D)
14.4 Packing group:	–
Limited quantity	1,00 L
Excepted quantity	E0
14.5 Environmental hazards	
Environmentally Hazardous:	No
14.6 Special precautions for user:	None.

IMDG

14.1 UN number or ID number:	UN 1950
14.2 UN proper shipping name:	AEROSOLS
14.3 Transport hazard class(es)	
Class:	2.1
Label(s):	2.1
EmS No.:	F-D, S-U
14.4 Packing group:	–
Limited quantity	None.
Excepted quantity	E0
14.5 Environmental hazards	

Marine pollutant:	No
14.6 Special precautions for user:	None.

IATA

14.1 UN number or ID number:	UN 1950
14.2 UN proper shipping name:	Aerosols, flammable
14.3 Transport hazard class(es)	
Class:	2.1
Label(s):	2.1
14.4 Packing group:	–
Passenger and cargo aircraft :	203
Limited quantity	None.
Excepted quantity	E0
14.5 Environmental hazards	
Environmentally Hazardous:	No
14.6 Special precautions for user:	None.
Passenger and cargo aircraft:	Allowed. 203
Cargo aircraft only :	Allowed. 203

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Control of Major Accident Hazards Regulations 2015 (COMAH):

Classification	Lower-tier Requirements	Upper-tier Requirements
P3a. Flammable aerosols	150 t	500 t

National Regulations

- 94/33/EC:
Employment restrictions concerning young persons must be observed.
- 92/85/EEC:
Employment restrictions concerning pregnant and lactating women must be observed.

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Date of first report version: 16.02.2026

Revision Date: 16.02.2026

Version #: 11.0

Abbreviations and acronyms:

EH40 WEL:	UK. EH40 Workplace Exposure Limits (WELs)
UKEH40BMGV:	UK. EH40 Biological Monitoring Guidance Values (BMGVs)
EH40 WEL / STEL:	Short Term Exposure Limit (STEL)
EH40 WEL / TWA:	Time Weighted Average (TWA)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EIGA - European Industrial Gases Association; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Notes:

Note C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
Note U	When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Key literature references and sources for data:

- ECHA: https://echa.europa.eu/

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Classification	Classification procedure

Flammable aerosol, Category 1	Calculation method
Skin Corrosion/Irritation, Category 2	Calculation method
Skin sensitiser, Category 1	Calculation method
Serious Eye Damage/Eye Irritation, Category 2	Calculation method
Acute toxicity, Category 4 Inhalation - dust and mist	Calculation method
Respiratory sensitiser, Category 1	Calculation method
Specific Target Organ Toxicity - Single Exposure, Category 3	Calculation method
Carcinogenicity, Category 2	Calculation method
Specific Target Organ Toxicity - Repeated Exposure, Category 2	Calculation method

Full text of the hazard statements

H220	Extremely flammable gas.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Training information: As from 24 August 2023 adequate training is required before industrial or professional use.feica.eu/PUinfo

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.