SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: REACH Regulation (EC) No 1907/2006, as retained in UK law by (SI 2019/758 as amended)

SIROFLEX HAND HELD PU EXPANDING FOAM
Supercedes date 25-Apr-2023

Revision date 08-Jul-2026
Revision Number 7.02

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

1.1. Product identifier

Product Name SIROFLEX HAND HELD PU EXPANDING FOAM

Substance/mixture Mixture

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

Recommended use Building and construction work

Uses advised against Professional cleaning activities with Aprotic Polar Solvents are not supported

Reason why uses advised against Use advised against in Chemical Safety Assessment per REACH Annex I point 7 2.3

1.3. Details of the supplier of the safety data sheet

Company Name
Siroflex Limited
Dodworth Business Park
S75 3SP BARNSLEY
SOUTH YORKSHIRE
United Kingdom
Tel: +44 (0) 1226771600

Manufacturer
Bostik Romania SRL
51, Rasaritului Street (DN7)
070000 Buftea
Ilfov
Romania
Phone: +40 372 833 300
Fax: +40 372 833 301
www.bostik.com

E-mail address SDS.box-EU@bostik.com

1.4. Emergency telephone number

United Kingdom Bostik: +44 (1785) 272650 (9am to 5pm Mon-Fri)
NHS: 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP (SI 2020/1567 as amended)

Aerosols	Category 1 - (H222, H229)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin irritation	Category 2 - (H315)
Eye irritation	Category 2 - (H319)
Respiratory sensitisation	Category 1 - (H334)
Skin sensitisation	Category 1 - (H317)
Carcinogenicity	Category 2 - (H351)
Effects on or via lactation	Yes - (H362)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Category 3 Target organ effects: Respiratory irritation.	
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Hazardous to the aquatic environment - chronic	Category 4 - (H413)

2.2. Label elements

Contains Diphenylmethane-diisocyanate, isomers and homologues; Alkanes, C14-17, chloro



Signal word
Danger

Hazard statements
H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
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.
H362 - May cause harm to breast-fed children.
H373 - May cause damage to organs through prolonged or repeated exposure.
H413 - May cause long lasting harmful effects to aquatic life.

Precautionary Statements - EU (§28, 1272/2008)
P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
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 vapour
P263 - Avoid contact during pregnancy and while nursing
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves and eye/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
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
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor
P405 - Store locked up
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
P501 - Dispose of contents/ container to an approved waste disposal plant
Special provisions concerning the labelling of certain mixtures

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used. As from 24 August 2023 adequate training is required before industrial or professional use.

Additional information
This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

During transportation by car the cans should stand upright in the cargo space. In case of insufficient ventilation and/or through use, the formation of an explosive/highly flammable mixture is possible. The mentioned hazards are valid for the non-reacted content of the can or of the fresh foam. When foaming the propellants are highly flammable.

PBT & vPvB
This mixture contains substances considered to be persistent, bio-accumulating and toxic (PBT). This mixture contains substances considered to be very persistent and very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Diphenylmethane-diisocyanate, isomers and homologues 9016-87-9	>25 - <40	[7]	618-498-9	STOT SE 3 (H335) STOT RE 2 (H373) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Carc. 2 (H351) Acute Tox. 4 (H332)	STOT SE 3 :: C>=5% Skin Irrit. 2 :: C>=5% Eye Irrit. 2 :: C>=5% Resp. Sens. 1 :: C>=0.1%	-	-	-
Alkanes, C14-17, chloro 85535-85-9	20 - <25	01-2119519269-33-XXXX	287-477-0 (602-095-00-X)	Lact. (H362) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH066) [H]	-	100	10	-
Isobutane 75-28-5	10 - <20	01-2119485395-27-XXXX	200-857-2 (601-004-00-0)	Flam. Gas 1 (H220) Press. Gas (H280)	-	-	-	C,U
Dimethyl ether 115-10-6	5 - <10	01-2119472128-37-XXXX	204-065-8 (603-019-00-8)	Flam. Gas 1 (H220) Press. Gas (H280)	-	-	-	U
Butane 106-97-8	1 - <2.5	01-2119474691-32-XXXX	203-448-7 (601-004-00-0)	Flam. Gas 1 (H220) Press. Gas (H280)	-	-	-	C,U

NOTE [7] - No registration number is given for this substance because it is a polymer exempted from registration according to the provisions of Article 2(9) of REACH. All monomers or other substances within the polymer are registered or exempt from registration

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

[H] - Substance has endocrine disrupting properties

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. The following codes are assigned: Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

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

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	EC No. (Index No.)	CAS No.	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Diphenylmethane-diisocyanate, isomers and homologues	618-498-9	9016-87-9	-	-	1.5	-	-
Alkanes, C14-17, chloro	287-477-0 (602-095-00-X)	85535-85-9	-	-	-	-	-
Isobutane	200-857-2 (601-004-00-0)	75-28-5	-	-	-	-	-
Dimethyl ether	204-065-8 (603-019-00-8)	115-10-6	-	-	-	-	-
Butane	203-448-7 (601-004-00-0)	106-97-8	-	-	-	-	-

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS No.	SVHC candidates
Alkanes, C14-17, chloro	85535-85-9	X

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Wash off immediately with soap and plenty of water for at least 15 minutes. Do not use solvents or thinners to dissolve the material.

Ingestion May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give

anything by mouth to an unconscious person. Get immediate medical attention.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information. Avoid breathing vapours or mists.

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

Symptoms May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/or wheezing. Itching. Rashes. Hives. 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. Erythema (skin redness). May cause redness and tearing of the eyes. Burning sensation. Difficulty in breathing.

Effects of Exposure May cause damage to organs through prolonged or repeated exposure. Suspected of causing cancer.

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

Note to doctors May cause sensitisation in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media Full water jet. DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Product is or contains a sensitiser. May cause sensitisation by inhalation. May cause sensitisation by skin contact.

Hazardous combustion products Carbon oxides. Carbon monoxide. Carbon dioxide (CO2). Hydrogen chloride. Nitrogen oxides (NOx). Hydrogen cyanide. Isocyanates.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid breathing vapours or mists.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Use clean non-sparking tools to collect absorbed material.

Prevention of secondary hazards Residues which cannot be recycled are disposed of as chemical waste. Equipment cleaned with organic solvent, washings are collected and disposed of as solvent waste. Eliminate all ignition sources if safe to do so.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Use personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapours or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Store locked up. Keep out of the reach of children. Keep from freezing. Keep/store only in original container. Store in a dry place. Store in a closed container. Protect from moisture.

Recommended storage temperature Do not freeze. Do not expose to temperatures exceeding 50 °C/122 °F.

7.3. Specific end use(s)

Specific use(s)
Building and construction work.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom
Diphenylmethane-diisocyanate, isomers and homologues 9016-87-9	TWA: 6 µg/m³; TWA: 10 µg/m³;	TWA: 0.02 mg/m³; STEL: 0.07 mg/m³; poS
Dimethyl ether 115-10-6	TWA: 1000 ppm; TWA: 1920 mg/m³;	TWA: 400 ppm; TWA: 766 mg/m³; STEL: 500 ppm; STEL: 958 mg/m³;
4,4-Methylenediphenyl diisocyanate 101-68-8	TWA: 10 µg NCO / m³ (2.9 ppb) STEL: 20 µg NCO / m³ (5.8 ppb) Sk* +	TWA: 0.02 mg/m³; STEL: 0.07 mg/m³; poS
Butane 106-97-8	-	TWA: 600 ppm; TWA: 1450 mg/m³; STEL: 750 ppm; STEL: 1810 mg/m³;
1,2,3-Propanetriol 56-81-5	-	TWA: 10 mg/m³; mist STEL: 30 mg/m³; mist

Chemical name	European Union	Ireland	United Kingdom
Diphenylmethane-diisocyanate, isomers and homologues 9016-87-9	-	1 µmol/mol Creatinine (urine - urinary Diamine post task)	-
4,4-Methylenediphenyl diisocyanate 101-68-8	-	1 µmol/mol Creatinine (urine - urinary Diamine post task)	-

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)			
Alkanes, C14-17, chloro (85535-85-9)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	6.7 mg/m³	
worker Systemic health effects Long term	Dermal	47.9 mg/kg bw/d	

Dimethyl ether (115-10-6)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	1894 mg/m³	

Derived No Effect Level (DNEL)			
Alkanes, C14-17, chloro (85535-85-9)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	2 mg/m³	
Consumer Long term Systemic health effects	Dermal	28.75 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	0.58 mg/kg bw/d	

Dimethyl ether (115-10-6)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	471 mg/m³	

Predicted No Effect Concentration (PNEC)

Predicted No Effect Concentration (PNEC)	
Alkanes, C14-17, chloro (85535-85-9)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	1 µg/l
Marine water	0.2 µg/l
Microorganisms in sewage treatment	80 mg/l
Freshwater sediment	13 mg/kg dry weight
Marine sediment	2.6 mg/kg dry weight
Soil	11.9 mg/kg dry weight

Dimethyl ether (115-10-6)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.155 mg/l
Marine water	0.016 mg/l
Microorganisms in sewage treatment	160 mg/l
Freshwater sediment	0.681 mg/kg dry weight
Soil	0.45 mg/kg dry weight

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas. Vapours/aerosols must be exhausted directly at the point of origin.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves. Glove thickness > 0.7mm. Butyl rubber. Nitrile rubber. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374

Skin and body protection Wear appropriate personal protective clothing to prevent skin contact.

Respiratory protection Ensure adequate respiratory protection during spray applications. In case of insufficient ventilation, wear suitable respiratory equipment.

Recommended filter type: Organic gases and vapours filter conforming to EN 14387. Wear a respirator conforming to EN 140 with Type A filter or better.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aerosol Foam
Colour	Green
Odour	Characteristic. Slight.

Property	Values	Remarks • Method
Melting point / freezing point	. °C	No data available Not applicable
Initial boiling point and boiling range	.	Not applicable, Aerosol
Flammability	No data available	Not applicable for liquids
Flammability Limit in Air		None known
Upper flammability or explosive limits	18.6 Vol%	
Lower flammability or explosive limits	1.7 Vol%	
Flash point	No data available	Not applicable, Aerosol
Autoignition temperature	. °C	No data available
Decomposition temperature		No data available
pH	No data available	No data available.
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	No data available
Dynamic viscosity	No data available	No data available
Water solubility	Insoluble in water.	Reacts with water Polymerisation can occur
Solubility(ies)	No data available	None known
Partition coefficient	No data available	No data available
Vapour pressure	6 - 7	bar @ 23 °C
Relative density	No data available	None known
Bulk density	No data available	
Density	0.9529 g/cm³	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

Solid content (%)	No information available
VOC content	No data available

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

Minimum Ignition Temperature (°C)	235 . Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

Conditions to avoid Product cures with moisture. Heat, flames and sparks. Excessive heat. Do not freeze. Protect from moisture. Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents. Water. Alcohols. Amines. Incompatible with oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. May cause sensitisation in susceptible persons. (based on components). May cause irritation of respiratory tract. Harmful by inhalation.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitisation by skin contact. Causes skin irritation.

Ingestion Specific test data for the substance or mixture is not available. May cause additional effects as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms 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. Coughing and/ or wheezing. Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral)	>2000 mg/kg
ATEmix (dermal)	>2000 mg/kg
ATEmix (inhalation-gas)	>20000 ppm
ATEmix (inhalation-dust/mist)	3.08 mg/L
ATEmix (inhalation-vapour)	>20 mg/L

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Diphenylmethane-diisocyanate, isomers and homologues	LD50 > 10000 mg/kg (Rattus)	LD 50 > 9400 mg/kg (Oryctolagus cuniculus)	1.5 mg/L (Rattus) 4 h
Alkanes, C14-17, chloro	>4000 mg/kg (Rattus)	> 2000 mg/kg (Rattus)	-
Isobutane	-	-	=658 mg/L (Rattus) 4 h
Dimethyl ether	-	-	=164000 ppm (Rattus) 4 h
Butane	-	-	=658 g/m³ (Rattus) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Diphenylmethane-diisocyanate, isomers and homologues (9016-87-9)					
Method	**Species**	**Exposure route**	**Effective dose**	**Exposure time**	**Results**
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit				Mild skin irritant

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitisation May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

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

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

Component Information		
Diphenylmethane-diisocyanate, isomers and homologues (9016-87-9)		
Method	**Species**	**Results**
OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies	Rat	Carcinogenic

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May cause harm to breast-fed children.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Alkanes, C14-17, chloro	Lact.

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

H373 - May cause damage to the following organs through prolonged or repeated exposure: Lungs, Inhalation.

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity May cause long lasting harmful effects to aquatic life. Cured foam has no C14-C17 chloroalkanes leaching in water for a maximum 20% C14-C17 chloroalkanes in mixture. Study: "Pulverized PU Foam HM23. Leaching study, Limit test" by Dr. Christine Jahns and sponsored by FEICA AISBL, 09.12.2014.

Product Information					
Method	**Species**	**Endpoint type**	**Effective dose**	**Exposure time**	**Results**
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	1000 mg/L	48 hours	Harmless to aquatic organisms up to the tested concentration

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Diphenylmethane-diisocyanate, isomers and homologues 9016-87-9	ErC50 (72h) >1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)	CL50 (96h) >1000 mg/L Danio rerio	-	EC50 (24H) >1000 mg/L Daphnia magna		
Alkanes, C14-17, chloro 85535-85-9	-	LC50: >500mg/L (48h, Leuciscus idus)	-	EC50 (48h) = 0.007 mg/l (Daphnia magna) OECD 202	100	10
Dimethyl ether 115-10-6	-	LC50: >4.1g/L (96h, Poecilia reticulata)	-	> 4400 mg/L (Daphnia) (NEN 6501)		

12.2. Persistence and degradability

Persistence and degradability No information available.

Diphenylmethane-diisocyanate, isomers and homologues (9016-87-9)

Method	Exposure time	Value	Results
OECD Test No. 302C: Inherent Biodegradability: Modified MITI Test (II)	28 days	0% biodegradation	Not readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Alkanes, C14-17, chloro	7
Isobutane	2.8
Dimethyl ether	-0.18
Butane	2.31

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product contains substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Alkanes, C14-17, chloro	PBT & vPvB
Isobutane	Not PBT/vPvB
Dimethyl ether	Not PBT/vPvB
Butane	Not PBT/vPvB

12.6. Endocrine disrupting properties Endocrine disrupting properties

Endocrine disruption for the environment Based on available data, the classification criteria are not met.

12.7. Other adverse effects Other adverse effects

Other adverse effects No information available.
PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Handle contaminated packages in the same way as the product itself.

European Waste Catalogue 08 05 01* waste isocyanates
16 05 04* gases in pressure containers (including halons) containing dangerous substances
17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Note: Keep from freezing.

Land transport (ADR/RID)

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols
14.3 Transport hazard class(es)	2
Labels	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2, (D)
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	190, 327, 344, 625
Classification code	5F
Tunnel restriction code	(D)
Limited quantity (LQ)	1 L

IMDG

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2.1
14.5 Marine pollutant	NP
14.6 Special precautions for user	
Special Provisions	63,190, 277, 327, 344, 381, 959
Limited Quantity (LQ)	See SP277
EmS-No.	F-D, S-U

14.7 Maritime transport in bulk according to IMO instruments

Transport in bulk according to Annex II of MARPOL and the IBC Code Not applicable

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols, flammable
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, flammable, 2.1
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	A145, A167, A802
Limited quantity (LQ)	30 kg G
ERG Code	10L

SECTION 15: Regulatory information

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

European Union

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:
This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59) >=0.1%

Chemical name	CAS No.
Alkanes, C14-17, chloro	85535-85-9

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	CAS No.	Restricted substance per REACH Annex XVII
Diisocyantes	--	74

56 . If product supplied to the general public with substance ≥0.1%, then gloves must be provided with the product. **74** If product supplied to the industrial or professional users with total monomeric diisocyanates ≥ 0.1%, then its packaging must mention “As from 24 August 2023 adequate training is required before industrial or professional use”.

Substance subject to authorisation per REACH Annex XIV
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Export Notification requirements
This product does not contain substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals above the level that triggers a labeling obligation under Regulation (EC) No 1272/2008. Therefore this product is not subject to prior informed consent notification.

Dangerous substance category per Seveso Directive (2012/18/EU)
P3a - FLAMMABLE AEROSOLS

Ozone-depleting substances (ODS) regulation (EC) 2024/590
Not applicable

Persistent Organic Pollutants
Not applicable

REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors
Not applicable

Regulations on drug precursors (EC) No 111/2005 (export) and 273/2004 (internal trade)
This product does not contain any substance(s) on the Drug Precursors list.

National regulations

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of any hazard and/or precautionary statements referred to under Sections 2-15
EUH066 - Repeated exposure may cause skin dryness or cracking
H220 - Extremely flammable gas
H280 - Contains gas under pressure; may explode if heated
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
H362 - May cause harm to breast-fed children
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Notes relating to the identification, classification and labelling of substances

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. The following codes are assigned: Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2)

Legend

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
Sk*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
EWC	European Waste Catalogue
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
RID	Regulations concerning the International Transport of Dangerous Goods by Rail

Key literature references and sources for data

No information available

Prepared By	Product Safety & Regulatory Affairs
Revision date	08-Jul-2026

Indication of changes

Revision Note	Not applicable.
Training Advice	AS FROM 24 AUGUST 2023 ADEQUATE TRAINING IS REQUIRED BEFORE INDUSTRIAL OR PROFESSIONAL USE For further information, please contact: https://www.safeusediisocyanates.eu/
Further information	No information available

This SDS complies with the requirements of UK REACH Regulations SI 2019/758 (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