SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008
This SDS is for generic information purposes and does not reflect required country specific information for OEL

POLYFLEX 452 BLACK
Supercedes Date: 02-Jun-2020

Revision date 17-Dec-2020
Revision Number 2

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

1.1. Product Identifier

Product Name POLYFLEX 452 BLACK
Pure substance/mixture Mixture

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

Recommended use Sealant.
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company Name
Den Braven France SARL
Z.I. du Meux - B.P. 20114
60881 Le Meux Cedex
France
Tel: + 33 344 91 68 68

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

1.4. Emergency telephone number

Emergency Telephone No information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Not classified

2.2. Label Elements

Not classified

Signal word
None

Hazard statements
Not classified

EU Specific Hazard Statements
EUH208 - Contains Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction
EUH210 - Safety data sheet available on request
EUH204 - Contains isocyanates. May produce an allergic reaction

2.3. Other Hazards

No information available

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No.	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH Registration Number
Xylene (reaction mass of ethylbenzene and xylene)	905-588-0	RR-45541-4	5 - <10	STOT SE 3 (H335) STOT RE 2 (H373) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Flam Liq. 3 (H226) Aquatic Chronic 3 (H412)	STOT RE 2 (H373):: C>=10%	01-2119488216-32-xxxx
Aromatic Polyisocyanate	-	53317-61-6	0.1- <1	Eye Irrit. 2 (H319) Skin Sens. 1 (H317)		[7]
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	1065336-91-5	0.01 - <0.1	Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		01-2119491304-40-XXXX
4,4'-Methylenediphenyl diisocyanate	202-966-0	101-68-8	0.01 - <0.1	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Carc. 2 (H351) STOT SE 3 (H335) STOT RE 2 (H373)	STOT SE 3 :: C>=5% Skin Irrit. 2 :: C>=5% Eye Irrit. 2 :: C>=5% Resp. Sens. 1 :: C>=0.1%	01-2119457014-47-XXXX

Toluene diisocyanate	247-722-4	26471-62-5	0.01 - <0.05	Acute Tox. 1 (H330) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Carc. 2 (H351) STOT SE 3 (H335) Aquatic Chronic 3 (H412)	Resp. Sens. 1 :: C>=0.1%	01-2119454791-34-XXXX

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

Full text of H- and EUH-phrases: see section 16
Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.

Ingestion Clean mouth with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.

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

Symptoms Prolonged contact may cause redness and irritation.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Full water jet. Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Thermal decomposition can lead to release of toxic and corrosive gases/vapours.
Hazardous combustion products	Carbon monoxide. Carbon dioxide (CO2). Hydrocarbons. Nitrogen oxides (NOx). Aldehydes. Hydrochloric acid. Sulphur oxides.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.
Other information	Ventilate the area. Prevent further leakage or spillage if safe to do so.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Do not flush into surface water or sanitary sewer system. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment	Do not scatter spilled material with high pressure water streams.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.

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	Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Protect from moisture.

7.3. Specific end use(s)

Specific Use(s)
Sealant.

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

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Chemical name	European Union
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	TWA: 50 ppm TWA: 221 mg/m³ STEL: 100 ppm STEL: 442 mg/m³ S*

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)			
Xylene (reaction mass of ethylbenzene and xylene) (RR-45541-4)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	221 mg/m³	
worker Long term Local health effects	Inhalation	221 mg/m³	
worker Short term Local health effects	Inhalation	442 mg/m³	
worker Long term Systemic health effects	Dermal	212 mg/kg bw/d	

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)			
4,4'-Methylenediphenyl diisocyanate (101-68-8)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Short term Systemic health effects	Dermal	50 mg/kg bw/d	
worker Short term Systemic health effects	Inhalation	0.1 mg/m³	
worker Short term Local health effects	Dermal	28700 µg/cm²	
worker Short term Local health effects	Inhalation	0.1 mg/m³	
worker Long term Systemic health effects	Inhalation	0.05 mg/m³	
worker Long term Local health effects	Inhalation	0.05 mg/m³	

Toluene diisocyanate (26471-62-5)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	0.035 mg/m³	
worker Short term Systemic health effects	Inhalation	0.14 mg/m³	
worker Long term Local health effects	Inhalation	0.035 mg/m³	
worker Short term Local health effects	Inhalation	0.14 mg/m³	

Derived No Effect Level (DNEL)			
Xylene (reaction mass of ethylbenzene and xylene) (RR-45541-4)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	65.3 mg/m³	
Consumer Short term Systemic health effects	Inhalation	260 mg/m³	
Consumer Long term Local health effects	Inhalation	65.3 mg/m³	
Consumer Short term Local health effects	Inhalation	260 mg/m³	
Consumer Long term Systemic health effects	Dermal	125 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	12.5 mg/kg bw/d	

4,4'-Methylenediphenyl diisocyanate (101-68-8)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Short term Systemic health effects	Dermal	25 mg/kg bw/d	
Consumer Short term Systemic health effects	Inhalation	0.05 mg/m³	
Consumer Short term Systemic health effects	Oral	20 mg/kg bw/d	
Consumer Short term Local health effects	Dermal	17200 µg/cm²	
Consumer Short term Local health effects	Inhalation	0.05 mg/m³	
Consumer Long term Systemic health effects	Inhalation	0.025 mg/m³	
Consumer	Inhalation	0.025 mg/m³	

Long term Local health effects			

Predicted No Effect Concentration (PNEC) No information available.

Predicted No Effect Concentration (PNEC)	
Xylene (reaction mass of ethylbenzene and xylene) (RR-45541-4)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.327 mg/l
Marine water	0.327 mg/l
Microorganisms in sewage treatment	6.58 mg/l
Freshwater sediment	12.46 mg/kg dry weight
Soil	2.31 mg/kg dry weight

4,4'-Methylenediphenyl diisocyanate (101-68-8)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	1 mg/l
Marine water	0.1 mg/l
Soil	1 mg/kg dry weight
Sewage treatment plant	1 mg/l
Freshwater - intermittent	10 mg/l

Toluene diisocyanate (26471-62-5)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.013 mg/l
Marine water	0.00125 mg/l
Microorganisms in sewage treatment	>1 mg/l
Soil	>1 mg/kg dry weight

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

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

Hand protection Nitrile rubber. Butyl rubber. Glove thickness > 0.4 mm. The breakthrough time of the gloves depends on the material and the thickness as well as the temperature. The breakthrough time for the mentioned glove material is in general greater than 60 min. Gloves must conform to standard EN 374

Skin and body protection Suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Recommended filter type: Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Organic gases and vapours filter conforming to EN 14387.

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 Paste
Colour Black
Odour Characteristic
Odour threshold No information available

Property	Values	Remarks • Method
pH	Not applicable .	
Melting point / freezing point	No data available	
Boiling point / boiling range	Not applicable . °C	

Flash point	> 61 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Flammability Limit in Air	
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapour pressure	No data available
Relative vapour density	No data available
Relative density	No data available
Water solubility	No data available
Solubility(ies)	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	600000 mm²/s
Dynamic viscosity	600000 mPa s
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

Solid content (%)	No information available
VOC Content (%)	No information available
Density	1.23 g/cm³

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	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Protect from moisture. Product cures with moisture.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

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 toxicological effects

Information on likely routes of exposure

Product Information .

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

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

Skin contact Specific test data for the substance or mixture is not available. Causes mild skin irritation.

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

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Prolonged contact may cause redness and irritation.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (dermal) 12,109.30 mg/kg
ATEmix (inhalation-vapour) 169.250 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	=3500 mg/kg (Rattus)	>10000 mg/kg (Oryctolagus cuniculus)	=>47635 mg/L (Rattus) 4 h = >5000 ppm (Rattus) 4 h
Aromatic Polyisocyanate 53317-61-6	LD50 >2000 mg/Kg (Rattus)		LC50 >3.820 mg/L (Rattus) 4h dust/mist
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate 1065336-91-5	LD50 = 3230 mg/Kg (Rat)	LD50 >3170 mg/Kg (Rat)	
4,4'-Methylenediphenyl diisocyanate 101-68-8	=31600 mg/kg (Rattus) = 9200 mg/kg (Rattus)	LD 50 > 9400 mg/kg (Oryctolagus cuniculus) OECD 402	=1.5 mg/L (Rattus) 4 h
Toluene diisocyanate 26471-62-5	=3060 mg/kg (Rattus)	= 10000 mg/kg (Oryctolagus cuniculus)	=0.107 mg/L (Rattus) 4 h (Vapour)

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. May cause skin irritation.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Component Information					
4,4'-Methylenediphenyl diisocyanate (101-68-8)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Eye	0.1 mL	24 hours	Non-irritant

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Component Information			
4,4'-Methylenediphenyl diisocyanate (101-68-8)			
Method	Species	Exposure route	Results
OECD GD 39	Rat	Inhalation	Sensitizing

Toluene diisocyanate (26471-62-5)			
Method	Species	Exposure route	Results
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay	Mouse	Dermal	sensitising

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

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

Chemical name	European Union
4,4'-Methylenediphenyl diisocyanate 101-68-8	Carc. 2
Toluene diisocyanate 26471-62-5	Carc. 2

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component Information		
4,4'-Methylenediphenyl diisocyanate (101-68-8)		
Method	Species	Results
OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies	Rat	Limited evidence of a carcinogenic effect

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

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

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

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity .

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	EC50 (72hr) 2.2 mg/l (Selenastrum capricornutum)	LC50(96h) 2.6 mg/l (Oncorhynchus mykiss-OECD	EC50 = 0.0084 mg/L 24 h	LC50(24h) 1 mg/l (Daphnia magna-OECD 202)		

		203)				
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate 1065336-91-5	-	LC50 (96h) =0.9 mg/L	-	-		
4,4'-Methylenediphenyl diisocyanate 101-68-8	ErC50 (72h) >1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)	>1000 mg/l (Danio rerio)	-	EC50 (24H) >1000 mg/L Daphnia magna		

12.2. Persistence and degradability

Persistence and degradability No information available.

Component Information			
Aromatic Polyisocyanate (53317-61-6)			
Method	**Exposure time**	**Value**	**Results**
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)		biodegradation	34 % Not readily biodegradable

4,4'-Methylenediphenyl diisocyanate (101-68-8)			
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 There is no data for this product.

Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	3.15	25.9
4,4'-Methylenediphenyl diisocyanate 101-68-8	4.51	200
Toluene diisocyanate 26471-62-5	-	5

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment .

Chemical name	PBT and vPvB assessment
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	The substance is not PBT / vPvB
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate 1065336-91-5	The substance is not PBT / vPvB

4,4'-Methylenediphenyl diisocyanate 101-68-8	The substance is not PBT / vPvB
Toluene diisocyanate 26471-62-5	The substance is not PBT / vPvB

12.6. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Contaminated packaging Do not reuse empty containers. Handle contaminated packages in the same way as the product itself.

European Waste Catalogue 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Marine pollutant NP
14.6 Special Provisions None
14.7 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 Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

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

European Union

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACh) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

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)

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

Persistent Organic Pollutants
Not applicable

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	RG 4bis,RG 84
4,4'-Methylenediphenyl diisocyanate 101-68-8	RG 62
Toluene diisocyanate 26471-62-5	RG 62

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV
No flammable liquids in accordance with BetrSichV

Water hazard class (WGK) obviously hazardous to water (WGK 2)

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

Chemical name	Netherlands
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	Development (Category 2)

Denmark
Norway
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 H-Statements referred to under section 3
H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H312 - Harmful in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
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
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

Legend

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
*	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

Key literature references and sources for data
No information available

Prepared By Product Safety & Regulatory Affairs

Revision date 17-Dec-2020

Indication of changes

Revision note Not applicable.

Training Advice No information available

Further information No information available

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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