

## **Section 1: Identification of the substance/mixture and of the company**

### **1.1 Product identifier**

- Substance name: Mineral Bond LV, Component B
- Index number: Not applicable (mixture)
- Synonyms: Not applicable
- CAS number: Not applicable (mixture)
- EC number: Not applicable (mixture)
- Registration number: excluded from registration (polymer)

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

#### **Relevant identified uses**

2-component, high strength silicate resin.

It is suitable for grout stabilization (for heavily cracked rock mass), gas sealing and water stopping.

#### **Uses advised against**

Any other uses than those listed should be consulted with the Supplier.

### **1.3 Details of the Supplier of the safety data sheet**

- Company: ROCBOLT Technologies (Pty) Ltd
- Address: 30 North Reef Rd., Germiston, 1429
- Telephone: +27 (0)11 9701643
- Fax: +27 (0)11 9703596
- Website: [www.rocbolt.com](http://www.rocbolt.com)

### **1.4 Emergency telephone numbers**

- Telephone: +27 (0)11 9701643
- Fax: +27 (0)11 9703596

## Section 2: Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

- Skin Irritation 2:	Category 2; H315
- Skin Irritation 2:	Category 2; H315
- Skin Sens 1:	Category 1; H317
- Eye Irritation 2:	Category 2; H319
- Acute Toxicity 4:	Category 4; H332
- Resp. Sens 1:	Category 1; H334
- STOT SE 3:	Category 3; H335
- Carc. 2:	Category 2; H351
- STOT RE 2:	Category 2; H373

Additional information: For full text of Hazard- and EU Hazard-statements: see SECTION 16

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal Word	DANGER
- Hazard pictograms	

### Hazard statements

- 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 repeated exposure.

**Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 In case of inadequate ventilation wear respiratory protection.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P353 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313 IF exposed or concerned: Get medical advice/attention. /international regulation.

**Supplemental hazard information**

- EUH204 Contains isocyanates. May produce an allergic reaction.

**2.3 Other hazards**

The substance does not meet the criteria for persistent, bioaccumulation and toxicity (PBT), or the criteria for Very Persistent and Very Bioaccumulative (vPvB) in accordance with Annex XIII of 1907/2006/EC.

Additional information: People with allergic anamneses (e.g., asthma, chronic bronchitis) should not work with this product. Symptoms of adverse effects on the respiratory system may appear after a few hours. The main threat to the respiratory tract is dust, vapours and aerosols.

**Section 3: Composition/Information on Ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

REACH Registration number	Weight [%]	CAS No	EC No	Classification according to Regulation (EC) No 1278/2008 (CLP)
polymeric MDI excluded from registration (polymer)	80 -100	9016-87-9	Not applicable	Skin Irritation 2; H315 Skin Sens 1; H317 Eye Irritation 2; H319 Acute Toxicity 4; H332 Resp. Sens 1; H334 STOT SE 3; H335 Carc. 2; H351 STOT RE 2; H373

Additional information: For full text of H-statements: see SECTION 16

## **Section 4: First Aid Measures**

### **4.1 Description of first aid measures**

- General information: Move the exposed person to fresh air at once.  
Poisoning by inhalation: If any health problems occur, or in the event of any doubt or an accident, seek medical attention and provide the doctor with information from the Safety Data Sheet. Always ensure the affected person peace of mind and ensure his/her warmth. If the affected person is unconscious, lay him/her down and transport him/her to a doctor in a stabilised position. If the affected person is not breathing, immediately commence artificial resuscitation. If the heart has stopped, indirect heart massage must be commenced immediately.
- Skin contamination: Wash thoroughly using copious warm water and soap or cleaning agent based on polyethylene and rinse thoroughly. Remove contaminated clothing and shoes immediately. Not use any solvents or thinners. In all cases of doubt, or when symptoms, e.g., irritation of skin persists, seek medical attention.
- Eye contamination: Rinse eyes for 15 minutes at least with plenty of water, holding eyelids wide open. Seek for medical attention. Avoid strong water stream because of risk of the cornea injury.
- Poisoning by swallowing: The injured conscious: Rinse mouths with water. Do not induce vomiting without medical supervision. Provide medical attention immediately.  
The injured unconscious: do not administer orally anything for unconscious injured. Provide medical attention immediately.

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

Headache, nausea, shortness of breath, sore throat, redness of the skin. Repeated or prolonged contact may cause skin sensitization. Repeated or prolonged contact may cause asthma.

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

Remove contaminated clothing and wash before reuse. If you feel unwell, seek medical advice immediately if possible, show the label.

Advise to doctor:

Irritating to respiratory system and is a potential agent of causing allergic skin and respiratory tract. The first characteristics are irritation of respiratory tract and bronchi. Depending on the size of the exposure and the persistence of symptoms may require longer care. May cause skin and eye irritation as a result of reaction with water in the tissues.

Symptoms of exposure may appear late.

## **Section 5: Firefighting Measures**

### **5.1 Extinguishing media**

- Suitable extinguishing media: Carbon dioxide (CO<sub>2</sub>), dry powder or foam. Fight larger fires with water spray. Water jets. Use water jets only to cool the surfaces of the containers exposed to fire to prevent them from bursting (explosion).
- Unsuitable extinguishing media: High volume water jet.

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

- Hazardous combustion products: During a fire, produce a dense smoke containing hazardous products - carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), hydrogen cyanide (HCN) in trace amounts, nitrogen oxides (NOx), isocyanate fumes. Do not inhale fumes and gases produce in the fire. See also section 10.

### **5.3 Advice for firefighters**

According to the size of fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks and gloves.

Prevent fire extinguishing water and fire residues from contaminating surface water, the ground water system or into drains or sewers. See also section 10.

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## **Section 6: Accidental Release Measures**

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

- For those not belonging to the staff assisting:  
Forbid unauthorized access to the site contamination.
- For those providing assistance:  
Avoid contact with eyes and skin. Provide adequate ventilation. Wear appropriate protective equipment - see Section 8.

### **6.2 Environmental precautions**

Avoid discharge into surface water or sanitary sewer system. Do not allow material to contaminated ground water system. If the product contaminates rivers, lakes or drains inform respective authorities.

### **6.3 Methods and material for containment and cleaning up**

Absorb in sawdust, dry sand or with absorbent based on hydrated calcium silicate and collect mechanically into labelled containers and deliver for disposal according to local regulations.

Damp waste left in an open container for a period of one hour to complete the reaction - the carbon dioxide is produced. Cured residues in accordance with the recommendations set forth in Section 13.

The released product may be neutralized with one of the two decontaminants, the composition of which is given below:

- Sodium carbonate: 5-10[%]; Washing agent: 0.2-2[%], with addition of water to 100[%].
- Ammonia solution: 3-8[%]; Washing agent: 0.2-2[%], with addition of water to 100[%].

### **6.4 Reference to other sections**

Protective equipment and clothing - see section 8.

Disposal of waste - see section 13 and 15.

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## **Section 7: Handling and Storage**

### **7.1 Precautions for safe handling**

Ensure adequate ventilation, general and local, exhaust. Observe regular review of ventilation equipment. Avoid contact with eyes. Avoid contact with skin. Do not breathe vapours. Wear gloves and protective clothing. Do not eat, drink, smoke or store food in the working areas. Immediately remove contaminated clothing and wash before reuse.

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

Store in tightly closed original container in a dry place. Protect from freezing. Store at temperatures from 10 to below 40[°C]. The product can withstand short-term heating to 50[°C]. See also section 10. Suitable materials for the container: Polyethylene HDPE or steel. Do not store with food, drink and animal feed.

### **7.3 Specific end use(s)**

No information on specific end-uses. See also subsection 1.2

## Section 8: Exposure Controls/Personal Protection

### 8.1 Control parameters

#### 8.1.1 Occupational exposure limit values

- Substance: 4,4'-methylenediphenyl diisocyanate
- CAS Number: 101-68-8

Countries	Limit value (8 hours)		Limit value (short term)	
	[ppm]	[mg/m <sup>3</sup> ]	[ppm]	[mg/m <sup>3</sup> ]
Austria	0.005	0.05	0.01	0.1
Belgium	0.005	0.052		
Denmark	0.005	0.05	0.01	0.1
European Union				
France	0.01	0.1	0.02	0.2
Germany		0.05		0.05
Hungary		0.05		0.05
Poland		0.05		0.2
Spain	0.005	0.052		
Sweden	0.002	0.03	0.005	0.05

Source: [http://limitvalue.ifa.dguv.de/Webform\\_gw.aspx](http://limitvalue.ifa.dguv.de/Webform_gw.aspx)

#### 8.1.2 DNEL/PNEC-values

##### Workers:

- Acute/short-term exposure - systemic effects (dermal): DNEL = 50[mg/kg] bw/day
- Acute/short-term exposure - systemic effects (inhalation): DNEL = 0.1[mg/m<sup>3</sup>]
- Acute/short-term exposure - local effects (dermal): DNEL = 28.7[mg/cm<sup>2</sup>]
- Acute/short-term exposure - local effects (inhalation): DNEL = 0.1[mg/m<sup>3</sup>]
- Long-term exposure - systemic effects (inhalation): DNEL = 0.05[mg/m<sup>3</sup>]
- Long-term exposure - systemic effects (dermal): Not applicable
- Long-term exposure - local effects (inhalation): DNEL = 0.05[mg/m<sup>3</sup>]
- Long-term exposure - local effects (dermal): Not applicable

**General population:**

- Acute/short-term exposure - systemic effects (dermal):	DNEL = 25[mg/kg] bw/day
- Acute/short-term exposure - systemic effects (inhalation):	DNEL = 0.05[mg/m <sup>3</sup> ]
- Acute/short-term exposure - systemic effects (oral):	DNEL = 20[mg/kg] bw/day
- Acute/short-term exposure - local effects (dermal):	DNEL = 17.2[mg/cm <sup>2</sup> ]
- Acute/short-term exposure - local effects (inhalation):	DNEL = 0.05[mg/m <sup>3</sup> ]
- Long-term exposure - systemic effects (inhalation):	DNEL 0.025[mg/m <sup>3</sup> ]
- Long-term exposure - systemic effects (dermal):	Not applicable
- Long-term exposure - systemic effects (oral):	Not applicable
- Long-term exposure - local effects (inhalation):	DNEL = 0.025[mg/m <sup>3</sup> ]
- Long-term exposure - local effects (dermal):	Not applicable
- Long-term exposure - local effects (oral):	Not applicable
- PNEC aqua (freshwater):	1 [mg/l]
- PNEC aqua (marine water):	0.1 [mg/l]
- PNEC aqua (intermittent releases):	10 [mg/l]
- PNEC STP:	1 [mg/l]
- PNEC soil:	1 [mg/kg] soil dw (dry weight)

**8.2 Exposure controls**

Avoid contact with eyes, mucous membranes and inhalation of vapours. It is forbidden to smoking, drinking, eating while working. Observe the typical standards of hygiene at work.

- Respiratory protection: In conditions of insufficient ventilation, while spraying the product, it is recommended to wear a mask with the filter type A2-P2.
- Eye protection: Wear approved chemical safety goggles with side shields where eye exposure is reasonably probable, meet the requirements of EN 166.
- Hand protection: Use suitable protective gloves, such as: polychloroprene  $\geq 0,5$ [mm] thick and breakthrough time  $\geq 480$  minutes; nitril  $\geq 0,35$ [mm] thick and breakthrough time  $\geq 480$  minutes; butyl rubber  $\geq 0,5$  mm thick and breakthrough time  $\geq 480$  minutes or fluoro-rubber  $\geq 0,4$ [mm] thick and breakthrough time  $\geq 480$  minutes.  
For prolonged or repeated skin contact use suitable protective gloves meet the requirements of EN 374.
- Skin protection: According to the exposure when handling the product wear suitable protective clothing, aprons, protective boots.

**General recommendations**

See also section 7.

Provide adequate ventilation. Remove contaminated clothing immediately. Wash hands before breaks and after work. Wash contaminated gloves before removing. At work do not eat, drink or smoke. Avoid contact with skin. Do not get in eyes. Do not breathe vapours.



## **Section 9: Physical and Chemical Properties**

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

- Melting point/freezing point:	<0[°C] (DIN 51556)
- Initial boiling point and boiling range:	>300[°C] (Read-across based on MDI mixed isomers - 26447-40-5.)
- Flash point:	>200[°C] (open cup)
- Flammability:	Not flammable
- Upper/lower flammability or explosive limits:	Not flammable
- Vapour pressure:	<10-5[mbar] (at 20[°C])
- Vapour density (air=1):	No data
- Density:	1.20 +/- 0.03[g/cm <sup>3</sup> ] (at 25[°C])
- Water solubility:	Reacts with water
- Partition coefficient n-octanol/water:	Not applicable
- Auto-ignition temperature:	> 600[°C] (1013[hPa]) (EU Method A.15)
- Decomposition temperature:	(Read-across based on oligomeric MDI- CAS 32055-14-4)
- Viscosity:	No data
- Explosive properties:	200 ± 80[mPa*s] (at 25[°C], dynamic) (ASTM D4899)
- Oxidising properties:	Not explosive

### **9.2 Other information**

These data are not always consistent with the specifications of a particular batch of product.  
See product sheet for more detailed information.

## **Section 10: Stability and Reactivity**

### **10.1 Reactivity**

Reacts with water, acids, alcohols, amines, bases and oxidants.

### **10.2 Chemical stability**

The main removal mechanism of MDIs in the environment is hydrolysis. MDI reacts quickly with water to form predominantly solid, insoluble polyurea. Under conditions typical of many types of environmental contact, i. e. with relatively poor dispersion of the denser isocyanate, the interfacial reaction leads to the formation of a solid crust encasing partially or unreacted material. This crust restricts ingress of water and egress of amine, and hence slows and modifies hydrolysis. Polymerise above 200[°C], and produces carbon dioxide.

### **10.3 Possibility of hazardous reactions**

Reaction is slow with cold or warm water (<50[°C]), with hot water or steam the reaction is faster, producing carbondioxide causing pressure increase. Acids, alcohols, amines, bases and oxidants cause fire and explosion hazard.

### **10.4 Conditions to avoid**

High temperature, moisture, strong light.

### **10.5 Incompatible materials**

Water, acids, alcohols, amines, bases and oxidants.

### **10.6 Hazardous decomposition products**

No hazardous decomposition products if stored and handled as prescribed/indicated.

## Section 11: Toxicological Information

### 11.1 Information on toxicological effects

- Acute toxicity (oral): Based on available data, the classification criteria are not met.  
Rats: LD50 > 2000[mg/kg] bw  
Method: 84/449/EEC  
(Read-across based on methylenediphenyl diisocyanate - CAS 26447-40-5.)
- Acute toxicity (aerosol inhalation): Rats: LC50 > 2.24[mg/l] air (1 h)  
Method: OECD Guideline 403  
(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)
- Acute toxicity (dermal): Based on available data, the classification criteria are not met.  
Rabbit: LD50 > 9400[mg/kg] bw (24 h)  
Method: OECD Guideline 402
- Skin corrosion/irritation: Rabbits: Irritating (4 h/14 days)  
Method: OECD Guideline 404  
(Read-across based on methylenediphenyl diisocyanate - CAS 26447-40-5.)
- Serious eye damage/irritation: Rabbits: Not irritating. (24 h/21 days)  
Method: OECD Guideline 405  
(Read-across based on methylenediphenyl diisocyanate - CAS 26447-40-5.)  
Summarized the available animal data would not support classification of MDI as an eye irritant. But together with human occupational case reports in which symptoms of eye irritation were reported the legal classification as eye irritant should be applied.
- Respiratory or skin sensitization: Animal data as well as studies in humans provide evidence of possible skin sensitization, and of respiratory sensitization due to MDI. Animal studies indicate that MDI is a strong allergen. Human case reports describe the occurrence of allergic contact dermatitis due to MDI exposure.
- Skin sensitization: Mice: Sensitizing  
Method: OECD Guideline 429 (LLNA)  
(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)
- Respiratory sensitization: Guinea pig: Sensitizing  
Method: Not available  
(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Gene mutation, in vitro - Salmonella typhimurium: Negative.  
Method: EU Method B 13/14  
(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)
- Chromosome aberration, in vivo: Rats (inhalation): Negative (3 weeks; 1/week, 1 h/day)  
Method: OECD Guideline 474  
(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)

- Carcinogenicity: Rats (inhalation: aerosol)  
NOAEC = 0.2[mg/m<sup>3</sup>] air (toxicity) (2 years; 6 h/day, 5 days/week)  
NOAEC = 1[mg/m<sup>3</sup>]air (carcinogenicity) (2 years; 6 h/day, 5 days/week)  
LOAEC = 6[mg/m<sup>3</sup>] air (carcinogenicity) (2 years; 6 h/day, 5 days/week)  
Method: OECD Guideline 453
- Reproductive toxicity: Based on available data, the classification criteria are not met.  
Effects on fertility: No fertility nor multigeneration studies are available for MDI.  
Rats (inhalation)  
NOAEL = 4[mg/m<sup>3</sup>] air (developmental toxicity) (10 days; 1/day, 6 h)  
NOAEL = 4[mg/m<sup>3</sup>] air (maternal toxicity) (10 days; 1/day, 6 h)  
Method: OECD Guideline 414
- STOT-single exposure: MDIs irritant the respiratory tract.  
(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)
- STOT-repeated exposure: Rats (inhalation: aerosol)  
LOAEC = 1.0[mg/m<sup>3</sup>] air (2 years; 6 h/day, 5 days/week)  
Target organs: respiratory - lung.  
Method: OECD Guideline 453
- Aspiration hazard: Not classified due to lack of data

## Section 12: Ecological information

### 12.1 Toxicity

- Short-term toxicity to fish: Freshwater fish (Brachydanio rerio) LC50 > 1000[mg/l] (96 h)  
Method: OECD Guideline 203
- Short-term toxicity to aquatic invertebrates: Freshwater invertebrates (Daphnia magna)  
EC50 > 1000[mg/l] (24 h)  
Method: OECD Guideline 202
- Long-term toxicity to aquatic invertebrates: Freshwater invertebrates (Daphnia magna)  
NOEC >= 10[mg/l] (21 days)  
Method: OECD Guideline 211
- Toxicity to aquatic algae and cyanobacteria: Freshwater algae (Desmodesmus subspicatus)  
EC50 > 1640[mg/l] (72 h)  
Method: OECD Guideline 201
- Toxicity to microorganisms: Microorganisms (activated sludge)  
EC50 > 100[mg/l] (3 h)  
Method: OECD Guideline 209

### 12.2 Persistence and degradability

- Photo-transformation in air: Half-life (DT50): 1 day  
Method: QSAR  
(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)
- Hydrolysis: MDI reacts with water to form predominantly inert polyurea.  
Half-life (DT50): 20 h (at 25[°C])  
(Read-across based on oligomeric MDI - CAS 32055-14-4.)
- Photo-transformation in water and soil: There are no photo-transformation data in water and soil for the test substance.  
Biodegradation in water: Under test conditions no biodegradation observed. (28 days)  
Method: OECD Guideline 302 C  
Biodegradation in water and sediment: Data waiving. In accordance with Annex XI, simulation biodegradation tests are technically not feasible as the test substance reacts quickly with water. The corresponding PEC/PNEC ratios would be less than 1.  
Taking into account the scientific and exposure arguments, it appears appropriate to waive the long-term fish/plant/soil and sediment toxicity studies.

### 12.3 Bioaccumulative potential

Bioaccumulation - aquatic/sediment: Due to the high reactivity of the substances of the MDI category with water, bioaccumulation tests can in principle not be performed with these substances. However, one bioaccumulation test with 4,4'-MDI and a mesocosm study with PMDI with an indication of bioaccumulation potential have been performed. As no analytical measurements were done, it cannot be determined if the values are truly related to MDI. However, based on the available information and the reactivity of MDI substances of the category approach, no new bioaccumulation study is deemed necessary.

BCF (Cyprinus carpio): 200 (28 days)

Method: OECD Guideline 305 E

(Read-across based on 4,4'-methylenediphenyl diisocyanate - CAS 101-68-8.)

### 12.4 Mobility in soil

There is no data available.

### 12.5 Results of PBT and vPvB assessment

Not applicable.

### 12.6 Other adverse effects

According to information provided by the manufacturer, the product has weak effects to the aquatic environment - class 1 by the German classification (classification manufacturer). Do not allow undiluted product or large quantities of it to reach surface water, ground water or sewage system. The product is not mixed with water. In the reaction with water produces carbon dioxide, and inert non - biodegradable solid (polyurea). Product is not classified as dangerous for the environment.

## **Section 13: Disposal Considerations**

### **13.1 Waste treatment methods**

Avoid or minimize waste material production. The material must be disposed in accordance with local or national rules (Waste Act). Unrefined material is not suitable for disposal. Do not let waste material, even in small quantities, down to wastewater, sewage system or watercourses. Emptied packaging must be passed to authorized waste receiver.

European Waste Catalogue code (EWC): 08 05 01\*

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## **Section 14: Transport Information**

### **14.1 UN number**

Not dangerous goods.

### **14.2 UN proper shipping name**

Not dangerous goods.

### **14.3 Transport hazard class(es)**

Not dangerous goods.

### **14.4 Packing group**

Not dangerous goods.

### **14.5 Environmental hazards**

No

### **14.6 Special precautions for user**

Not dangerous goods.

### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

No regulation.

## **Section 15: Regulatory Information**

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

- 1. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC). No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended, (REACH) (Official Journal of the European Union L of 2006 No. 396, item 1).
- 2. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ EU L of 2008 No. 35, item 1).
- 3. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ EU L of 2015 No. 132).
- 3. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ EU L of 2015 No. 132).
- 4. Commission Directive No. 2000/39/EC; 2006/15/EC and 2009/161/EC establishing first, second and third lists of indicative occupational exposure limit values (OJ EU L 2000, No. 142, item 47; OJ EU L 2006, No. 38, item 36; OJ EU L of 2009 No. 338, item 87).

### **15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out.

## Section 16: Other Information

### **The full version of the hazard classes and category codes**

- Acute Toxicity 4: Acute toxicity (oral); category 4
- Carc. 2: Carcinogenicity; category 2
- Eye Irritation 2: Serious eye damage/eye irritation; category 2
- Resp. Sens. 1: Respiratory sensitisation, category 1
- Skin Irritation 2: Skin corrosion/irritation, category 2
- Skin Sens. 1B: Skin sensitisation, category 1B
- STOT RE 2: Specific target organ toxicity - repeated exposure; category 2
- STOT SE 3: Specific target organ toxicity - single exposure; category 3

### **Full text of H-sentences (Hazard statements) referred to under sections 2 and 3**

- 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 repeated exposure

According to information provided by the manufacturer, technical (polymers) MDI (pMDI) CAS 9016-87-9 (in the form of aerosol respirable fraction) is classified as category 3 carcinogens.

The current edition of the safety data sheet replaces the previous edition.

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.