

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Commercial Product Name: ALEXIT BR3KH2-BladeRep Hardener 3K
Quality No.: 4953K90Q20000

Revision Date 01.08.2023
Print Date 01.08.2023
Version 2

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

1.1 Product identifier

Trade name : ALEXIT BR3KH2-BladeRep Hardener 3K 90Q2 schwarz / black

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

Use of the Substance/Mixture : Industrial serial painting

1.3 Details of the supplier of the safety data sheet

Producer : Mankiewicz Gebr. & Co. (GmbH & Co. KG)
Georg-Wilhelm-Strasse 189
21107 Hamburg
Germany

Only for UK:

Supplied by Mankiewicz UK LLP
26 Ashville Way, Whetstone,
Leicester LE8 6NU
United Kingdom

Telephone : +49 (0) 40 75103 0
Telefax : +49 (0) 40 75103 375
E-mail address of person responsible for the SDS : sdb_info@umco.de

1.4 Emergency telephone number

Emergency telephone number : +44 1865 407333 (NCEC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H332: Harmful if inhaled.
Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Respiratory system H335: May cause respiratory irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Mankiewicz Gebr. & Co. (GmbH & Co. KG) Georg-Wilhelm-Straße 189 21107 Hamburg (Wilhelmsburg) Tel.: +49 (0) 40 / 75 10 30 Fax: +49 (0) 40 / 75 10 33 75 www.mankiewicz.de	Bank Name Deutsche Bank HypoVereinsbank Postbank	Ort Hamburg Hamburg Hamburg	Kto.-Nr. 600227300 59273300 373205	BLZ 200 700 00 200 300 00 200 100 20	BIC DEUTDE33 HYVEDE33 PNKDEFF200	IBAN DE58 2007 0000 0600 2273 00 DE34 2003 0000 0059 2733 00 DE85 2001 0020 0000 3732 05	Sitz/Registriergericht Hamburg: HRA 42442 Persönlich haftende Gesellschafterin: Grau Gebr. Beteiligungs-GmbH Sitz/Registriergericht Hamburg: HRB 17189 Geschäftsführender Gesellschafter: Michael O. Grau	Bureau Veritas Certification: ISO 9001, TS 16949, EN 9100	
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Hazard pictograms :



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**

P261 Avoid breathing mist or vapours.
P280 Wear protective gloves.

Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Hazardous components which must be listed on the label:

Hexamethylene diisocyanate, oligomers

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Hardener based on polyisocyanates

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Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Hexamethylene diisocyanate, oligomers	28182-81-2 931-274-8500-060-2 01-2119485796-17	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system)	>= 40 - <= 100

These contain:

hexamethylene-di-isocyanate	822-06-0 212-485-8 615-011-00-1 01-2119457571-37	Acute Tox. 4; H302 Acute Tox. 1; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system) <hr/> specific concentration limit Resp. Sens. 1; H334 >= 0.5 % Skin Sens. 1; H317 >= 0.5 %	>= 0 - < 0.1
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : In all cases of doubt, or when sickness symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.
- If inhaled : Remove to fresh air, keep patient warm and at rest.
Irregular breathing/no breathing: artificial respiration.
If unconscious place in recovery position and seek medical advice.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners !
- In case of eye contact : Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
- If swallowed : Do NOT induce vomiting.
If accidentally swallowed obtain immediate medical attention.
Never give anything by mouth to an unconscious person.
Keep at rest.

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4.2 Most important symptoms and effects, both acute and delayed

Risks : May cause an allergic skin reaction.
Harmful if inhaled.
May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol resistant foam, CO2, powders

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3 Advice for firefighters

Special protective equipment for firefighters : Appropriate breathing apparatus may be required.

Further information : Cool endangered containers with water in case of fire.
DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Exclude sources of ignition and ventilate the area.
Do not inhale vapours.
Refer to protective measures listed in sections 7 and 8.
Immediately clean contaminated areas with following substances:

Water	45 Vol.%
Ethanol or Isopropyl Alcohol	50 Vol.%
Ammonia solution (density=0,88)	5 Vol.%

Alternative applicable to that (not flammable):
Sodium Carbonate 5 Vol.%
Water 95 Vol.%

6.2 Environmental precautions

Environmental precautions : Do not let product enter drains.
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.



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Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to local regulations.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see chapter 13).
Clean preferably with a detergent; avoid use of solvents.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used !
Comply with the health and safety at work laws.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Preparation may charge electrostatically: always use earthing leads when transferring from one container to another.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container dry in a cool, well-ventilated place. Precautions should be taken to minimise exposure to atmospheric humidity or water: CO₂ will be formed which in closed containers can result in pressurisation. **DO NOT KEEP THE CONTAINERS SEALED !!**

Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline materials.

Recommended storage temperature : 5 - 35 °C

7.3 Specific end use(s)

Specific use(s) : This information is not available.



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Hexamethylene diisocyanate, oligomers	28182-81-2	TWA	0.02 mg/m3 (NCO)	GB EH40
	<p>Further information: Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even in tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified as asthmagens or respiratory sensitisers. Further information can be found in the HSE publication Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced to as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information.</p>			
		STEL	0.07 mg/m3 (NCO)	GB EH40
	<p>Further information: Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even in tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of</p>			



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asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified as asthmagens or respiratory sensitisers. Further information can be found in the HSE publication Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced to as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information.

hexamethylene-diisocyanate	822-06-0	TWA	0.02 mg/m3 (NCO)	GB EH40
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Further information: Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even in tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified as asthmagens or respiratory sensitisers. Further information can be found in the HSE publication Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced to as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information.

		STEL	0.07 mg/m3	GB EH40
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DE34 2003 0000 0059 2733 00
DE85 2001 0020 0000 3732 05

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(NCO)	
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Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Hexamethylene diisocyanate, oligomers	28182-81-2	isocyanate-derived diamine (Isocyanates): 1 µmol/mol creatinine (Urine)	At the end of the period of exposure	GB EH40 BAT

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Hexamethylene diisocyanate, oligomers	Workers	Inhalation	Long-term local effects	0.5 mg/m ³
Hexamethylene diisocyanate, oligomers	Workers	Inhalation	Long-term local effects	0.5 mg/m ³

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Hexamethylene diisocyanate, oligomers	Fresh water	0.127 mg/l
	Marine water	0.013 mg/l
	Fresh water sediment	266701 mg/kg

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		dry weight (d.w.)
	Sewage treatment plant	88 mg/l
	Soil	53183 mg/kg dry weight (d.w.)
	Marine sediment	26670 mg/kg dry weight (d.w.)
Hexamethylene diisocyanate, oligomers	Fresh water	0.127 mg/l
	Marine water	0.013 mg/l
	Fresh water sediment	266701 mg/kg dry weight (d.w.)
	Sewage treatment plant	88 mg/l
	Soil	53183 mg/kg dry weight (d.w.)
	Marine sediment	26670 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Eye/face protection : Wear safety goggles to protect against splashes.

Hand protection

Remarks : Adhere to the professional organisation rule "Use of protective gloves". Appropriate chemicals resistant glove tested in compliance with EN 374.
Recommendation for protection against components generally found in the products:

For short-term contact (i.e. splash protection):

Appropriate material:

nitrile rubber, Neoprene

Material thickness: > 0,4 mm

Breakthrough time: > 480 min

Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Preventive hand protection (skin protection cream) recommended. Wash immediately contaminated skin. Design operations thus to avoid permanent use of protective gloves.

Skin and body protection : Clothing as usual in the chemical industry.
Skin should be washed after contact.



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- Respiratory protection : By spraying: air-fed respirator.
By other operations than spraying: in well ventilated areas, air-fed respirators could be replaced by a combination of charcoal filter and particulate filter mask
Use half-mask model with cartridge or air-fed.
- Protective measures : Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.
Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
Avoid the inhalation of dust from sanding, particulates and spray mist arising from the application of this preparation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Physical state : liquid
- Colour : according product name
- Odour : characteristic
- Boiling point/boiling range : ca. 120 °C
- Flash point : > 100 °C
Method: ISO 13736
- pH : substance/mixture reacts with water
- Viscosity
Viscosity, kinematic : > 21 mm²/s
- Flow time : > 150 s
Cross section: 4 mm
Method: DIN 53211
- > 100 s
Cross section: 6 mm
Method: ISO 2431
- Solubility(ies)
Water solubility : insoluble
- Vapour pressure : ca. 100 hPa (50 °C)
- Density : ca. 1.1 g/cm³ (20 °C)

9.2 Other information

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HypoVereinsbank	Hamburg	59273300	200 300 00	HYVEDE33HAN	DE34 2003 0000 0059 2733 00
Postbank	Hamburg	373205	200 100 20	PBNKDE33HAN	DE85 2001 0020 0000 3732 05

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Miscibility with water : immiscible
Solvent separation : < 3 %(V)

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Stable under recommended storage and handling conditions (See section 7).

10.5 Incompatible materials

Materials to avoid : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result distortion blowing and in extreme cases bursting of the container.

10.6 Hazardous decomposition products

In a fire, hazardous decomposition products, such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomers of isocyanates, amines and alcohols may be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if inhaled.

Product:

Acute inhalation toxicity : Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Acute toxicity estimate: 11.24 mg/l

Exposure time: 4 h

Test atmosphere: vapour

Method: Calculation method



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Components:

Hexamethylene diisocyanate, oligomers:

Acute inhalation toxicity : LC50 (Rat, male): 0.543 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

Hexamethylene diisocyanate, oligomers:

Species : Mouse
Assessment : May cause sensitisation by skin contact.
Method : OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Mankiewicz Gebr. & Co. (GmbH & Co. KG) Georg-Wilhelm-Straße 189 21107 Hamburg (Wilhelmsburg) Tel.: +49 (0) 40 / 75 10 30 Fax: +49 (0) 40 / 75 10 33 75 www.mankiewicz.de	Bank Name Deutsche Bank HypoVereinsbank Postbank	Ort Hamburg Hamburg Hamburg	Kto.-Nr. 600227300 59273300 373205	BLZ 200 700 00 200 300 00 200 100 20	BIC DEUTDE33 HYVEDE33 PNKDEFF200	IBAN DE58 2007 0000 0600 2273 00 DE34 2003 0000 0059 2733 00 DE85 2001 0020 0000 3732 05	Sitz/Registriergericht Hamburg: HRA 42442 Persönlich haftende Gesellschafterin: Grau Gebr. Beteiligungs-GmbH Sitz/Registriergericht Hamburg: HRB 17189 Geschäftsführender Gesellschafter: Michael O. Grau	Bureau Veritas Certification: ISO 9001, TS 16949, EN 9100	
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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Commercial Product Name: ALEXIT BR3KH2-BladeRep Hardener 3K
Quality No.: 4953K90Q20000

Revision Date 01.08.2023
Print Date 01.08.2023
Version 2

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks : Exposure of vapour concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness.
Based on the properties of the isocyanate components and considering toxicological data on similar preparations: This preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.
The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

12.4 Mobility in soil

Product:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Commercial Product Name: ALEXIT BR3KH2-BladeRep Hardener 3K
Quality No.: 4953K90Q20000

Revision Date 01.08.2023
Print Date 01.08.2023
Version 2

Mobility : Remarks: There are no data available on the preparation itself.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : There are no data available on the preparation itself. The product should not be allowed to enter drains or water courses.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

Contaminated packaging : Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Commercial Product Name: ALEXIT BR3KH2-BladeRep Hardener 3K
Quality No.: 4953K90Q20000

Revision Date 01.08.2023
Print Date 01.08.2023
Version 2

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good
Remarks : If transported within the user's premises: To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation : Not applicable

UK REACH List of substances subject to authorisation (Annex XIV) : Not applicable

Volatile organic compounds :

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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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Quality No.: 4953K90Q20000

Revision Date 01.08.2023
Print Date 01.08.2023
Version 2

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 0.49 %, 5 g/l

Other regulations:

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for the mixture.

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Skin Sens. : Skin sensitisation
STOT SE : Specific target organ toxicity - single exposure
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT : UK. Biological monitoring guidance values
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

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; 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; IECS - 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 Re-



SAFETY DATA SHEET

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Quality No.: 4953K90Q20000

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striction 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

Further information

Other information : The information given in this material safety data sheet does not release the user from its duty of risk assessment and control in the work place defined in other health and safety law. Adhere to the national sanitary and occupational safety regulations when using this product.

This safety datasheet complies with the requirements of regulation (EC) No 1907/2006(2020/878).

Classification of the mixture:

Acute Tox. 4	H332
Skin Sens. 1	H317
STOT SE 3	H335

Classification procedure:

Calculation method
Calculation method
Calculation method

Department issuing safety data sheet

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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.

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