

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Commercial Product Name: ALEXIT BR1275-BladeRep Topcoat 12
Quality No.: 547437035W000
consisting of the components:
Commercial Product Name: ALEXIT BR1275-BladeRep Topcoat 12 / Quality No.:
471437035W000
Commercial Product Name: ALEXIT BR12H0-BladeRep Hardener 12 / Quality No.:
4053D00000000

Revision Date 21.09.2018
Print Date 21.09.2018
Version 2

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

1.1 Product identifier

Trade name : ALEXIT BR1275-BladeRep Topcoat 12 RAL 7035 lichtgrau /
light grey matt

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

Use of the : Industrial serial painting
Substance/Mixture

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

Telephone : +49 (0) 40 75103 0
Telefax : +49 (0) 40 75103 375
E-mail address : sdb_info@umco.de

1.4 Emergency telephone number

Emergency telephone : +49 (0) 551 / 19240 (Toxic agent information centre North /
number : NORTH)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.
Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.
Specific target organ toxicity - single H336: May cause drowsiness or dizziness.
exposure, Category 3, Central nervous
system
Long-term (chronic) aquatic hazard, Category H412: Harmful to aquatic life with long lasting effects.
3

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 DEUTDE33XXX HYVEDE3300 PNBKDEFF200	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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MANKIEWICZ
Lackierideen der Zukunft



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Hazard pictograms



Signal word

: Warning

Hazard statements

: H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements

: EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements

: **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

64742-95-6 Hydrocarbons, C9, aromatics

123-86-4 n-butyl acetate

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

reaction mass of a-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-?-hydroxypoly(oxyethylene) and a-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-?-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)

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.

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200 300 00
200 100 20

BIC
DEUTDE33XXX
HYVDE3300
PNBKDE33XXX

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:
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Sitz/Registriergericht Hamburg: HRB 17189
Geschäftsführender Gesellschafter:
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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture of synthetic resins, organic solvents and pigments

Hazardous components

Chemical name CAS-No. EC-No. Registration number Remarks	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Hydrocarbons, C9, aromatics 64742-95-6 01-2119455851-35	Flam. Liq. 3; H226 STOT SE 3; H335, H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 12,5 - < 20
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate 01-2119491304-40	Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,5 - < 1
reaction mass of a-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-?-hydroxypoly(oxyethylene) and a-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-?-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionylpoly(oxyethylene) 400-830-7 01-0000015075-76	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 0,25 - < 0,5
Substances with a workplace exposure limit :		
n-butyl acetate 123-86-4 204-658-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 5 - < 12,5

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

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- medica lattention.
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.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Alcohol resistant foam, CO2, powders, water spray
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : 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!!

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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.

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.

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 : Prevent the creation of flammable or explosive concentrations of
vapour in air and avoid vapour concentrations higher than the
occupational exposure limits.
Comply with the health and safety at work laws.
Smoking, eating and drinking should be prohibited in the application
area.
Observe specific national regulations for handling and use of paints.

Advice on protection against fire and explosion : The product should only be used in areas from which all naked lights
and other sources of ignition have been excluded. Preparation may
charge electrostatically: always use earthing leads when transferring
from one container to another. Operators should wear anti-static
footwear and clothing. No sparking tools should be used. Vapours
are heavier than air and may spread along floors. Vapours may form
explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical equipment should be protected to the appropriate standard.
Floors should be of the conducting type. Keep container tightly
closed. Never use pressure to empty: container is not a pressure
vessel. No smoking. Prevent unauthorized access. Containers which

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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.
- Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline materials.
- Storage temperature : 5 - 35 °C

7.3 Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

CAS-No.	Source	Value	Ceiling Limit Value	Update
n-butyl acetate				
123-86-4	List of approved workplace exposure limits (WELs) / EH40	150 ml/m3 724 mg/m3		December 2011

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

- n-butyl acetate : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 300 mg/m3
End Use: Workers
Exposure routes: Dermal
Potential health effects: Long-term systemic effects
Value: 11 mg/kg bw/day
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 35,7 mg/m3
End Use: Consumers
Exposure routes: Dermal
Potential health effects: Long-term systemic effects
Value: 554 mg/kg bw/day
End Use: Consumers
Exposure routes: Oral
Potential health effects: Long-term systemic effects
Value: 2 mg/kg bw/day

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

n-butyl acetate : Fresh water
Value: 0,18 mg/l
Marine water
Value: 0,0018 mg/l
Fresh water sediment
Value: 0,981 mg/kg dry weight (d.w.)
Marine sediment
Value: 0,098 mg/kg dry weight (d.w.)
Sewage treatment plant
Value: 35,6 mg/l
Soil
Value: 0,09 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 aerosol- and solvent vapours concentration below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Eye protection : Wear safety goggles to protect against solvent 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 : Personal should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber. All parts of the body should be washed after contact.

Respiratory protection : If workers are exposed to concentrations above the exposure limit

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they must use appropriate, certified respirators. Use half-mask model with cartridge or air-fed. Dry grinding, torch cutting and/or welding however can produce hazardous dust and/or vapour. If possible, machine employing a wet medium. Where practicable, install exhaust hoods to improve capture of vapours and fumes and avoid exposition; otherwise wear respiratory protection equipment.

Protective measures : 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. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid
Colour : according product name
Odour : characteristic
Flash point : 34 °C
Method: ISO 13736

Upper explosion limit : 10 %(V)

Lower explosion limit : 1 %(V)

Vapour pressure : ca. 100 hPa (50 °C)

Density : ca. 1,4 g/cm³ (20 °C)

Water solubility : insoluble

Auto-ignition temperature : > 400 °C

Viscosity : > 150 s
Flow time : > 150 s
Cross section: 4 mm
Method: DIN 53211

> 100 s
Cross section: 6 mm
Method: ISO 2431

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9.2 Other information

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.
There are no data available on the preparation itself.

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.

10.6 Hazardous decomposition products

Hazardous decomposition products : When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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., Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin., The liquid splashed in the eyes may cause irritation and reversible damage.



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SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment
Short-term (acute) aquatic
hazard

: There are no data available on the preparation itself.

Components:

Hydrocarbons, C9, aromatics, Hydrocarbons, C9, aromatics:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 9,2 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other
aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3,2 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 2,9 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate, Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,97 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other
aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 20 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 1,68 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: The product has low solubility in the test medium. An aqueous dispersion was tested.

Toxicity to daphnia and other
aquatic invertebrates (Chronic
toxicity) : NOEC: 1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
Remarks: The product has low solubility in the test medium. An aqueous dispersion was tested.

12.2 Persistence and degradability

Product:

Biodegradability

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



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12.3 Bioaccumulative potential

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

12.4 Mobility in soil

Product:
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..

12.6 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 : The listed waste code numbers, according to the European Waste Catalogue, are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.

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.

Waste key for the unused product : 080111 waste paint and varnish containing organic solvents or other dangerous substances

SECTION 14: Transport information

14.1 UN number

ADR : UN 1263
IMDG : UN 1263
IATA : UN 1263

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Lackierideen der Zukunft



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Quality No.: 547437035W000
consisting of the components:
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Commercial Product Name: ALEXIT BR12H0-BladeRep Hardener 12 / Quality No.:
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14.2 UN proper shipping name

ADR : PAINT
IMDG : PAINT
IATA : PAINT

14.3 Transport hazard class(es)

ADR : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR
Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)

IMDG
Packing group : III
Labels : 3
EmS Code : F-E, S-E

IATA
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355
Packing group : III
Labels : Flammable Liquids

14.5 Environmental hazards

ADR
Environmentally hazardous : no

IMDG
Marine pollutant : no

14.6 Special precautions for user

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.
Receptacles with less than 450 litres capacity, are not subject to ADR (see ADR 2.2.3.1.5)
Receptacles with less than 30 litres capacity, are not subject to the regulations of IMDG chapters 4.1, 5.2 and 6.1 (see IMDG 2.3.2.5)



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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern : Not applicable
for Authorisation (Article 59).

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) : VOC content excluding water 25 %
353 g/l

Other regulations : 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.

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

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
Asp. Tox.	Aspiration hazard
Flam. Liq.	Flammable liquids

Further information

Further information

Other information : This safety datasheet complies with the requirements of regulation (EC) No 1907/2006(2015/830).

Department issuing safety data sheet

Mankiewicz Gebr. & Co. (GmbH & Co. KG) Georg-Wilhelm-Straße 169 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 DEUTDE33XXX HYVDE3300 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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Telefon: +49(0)40/555 546 300 Fax: +49(0)40/555 546 357
e-mail:umco@umco.de

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.

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

1.1 Product identifier

Trade name : ALEXIT BR12H0-BladeRep Hardener 12 farblos / transparent

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

Telephone : +49 (0) 40 75103 0
Telefax : +49 (0) 40 75103 375
E-mail address : sdb_info@umco.de

1.4 Emergency telephone number

Emergency telephone number : +49 (0) 551 / 19240 (Toxic agent information centre North / NORD)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3

H226: Flammable liquid and vapour.

Acute toxicity, Category 4

H332: Harmful if inhaled.

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Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Central nervous system H336: May cause drowsiness or dizziness.
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)

Hazard pictograms :



Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Supplemental Hazard Statements : EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

28182-81-2 Hexamethylene diisocyanate, oligomers

123-86-4 n-butyl acetate

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822-06-0 hexamethylene-di-isocyanate

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.
The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Hardener based on polyisocyanates

Hazardous components

Chemical name CAS-No. EC-No. Registration number Remarks	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Hexamethylene diisocyanate, oligomers 28182-81-2 01-2119488934-20	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335	>= 40 - <= 100
hexamethylene-di-isocyanate 822-06-0 212-485-8 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	>= 0,25 - < 0,5
Substances with a workplace exposure limit :		
n-butyl acetate 123-86-4 204-658-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 25 - < 40

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.



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- 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.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Alcohol resistant foam, CO2, powders, water spray
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : 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!!**



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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.
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 !
Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.
Comply with the health and safety at work laws.
Smoking, eating and drinking should be prohibited in the application area.

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Advice on protection against fire and explosion : The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing. No sparking tools should be used. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. 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.

Storage temperature : 5 - 35 °C

7.3 Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

CAS-No.	Source	Value	Ceiling Limit Value	Update
n-butyl acetate				
123-86-4	List of approved workplace exposure limits (WELs) / EH40	150 ml/m ³ 724 mg/m ³		December 2011
hexamethylene-di-isocyanate				
822-06-0	List of approved workplace exposure limits (WELs) / EH40	0,02 mg/m ³		December 2011

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Further information: | Sen

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

n-butyl acetate : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 300 mg/m³
End Use: Workers
Exposure routes: Dermal
Potential health effects: Long-term systemic effects
Value: 11 mg/kg bw/day
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 35,7 mg/m³
End Use: Consumers
Exposure routes: Dermal
Potential health effects: Long-term systemic effects
Value: 554 mg/kg bw/day
End Use: Consumers
Exposure routes: Oral
Potential health effects: Long-term systemic effects
Value: 2 mg/kg bw/day

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

n-butyl acetate : Fresh water
Value: 0,18 mg/l
Marine water
Value: 0,0018 mg/l
Fresh water sediment
Value: 0,981 mg/kg dry weight (d.w.)
Marine sediment
Value: 0,098 mg/kg dry weight (d.w.)
Sewage treatment plant
Value: 35,6 mg/l
Soil
Value: 0,09 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 protection : Wear safety goggles to protect against solvent 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:



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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 : Personal should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber. All parts of the body should be washed after contact.
- 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

- Appearance : liquid
Colour : according product name
Odour : characteristic
Boiling point/boiling range : ca. 120 °C
- Flash point : 35 °C
Method: ISO 13736
- Upper explosion limit : 10,0 %(V)
- Lower explosion limit : 1,0 %(V)

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Vapour pressure : ca. 100 hPa (50 °C)

Density : ca. 1,06 g/cm3 (20 °C)

Water solubility : insoluble

Auto-ignition temperature : > 400 °C

Viscosity
Flow time : 33 s
Cross section: 4 mm
Method: DIN 53211

23 s
Cross section: 6 mm
Method: ISO 2431

9.2 Other information

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.
There are no data available on the preparation itself.

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

Hazardous decomposition products : In a fire, hazardous decomposition products, such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide,

Mankiewicz Gebr. & Co. (GmbH & Co. KG) Georg-Wilhelm-Straße 169 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 DEUTDE33XXX HYVDE333XXX PBNKDE33XXX	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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Commercial Product Name: ALEXIT BR12H0-BladeRep Hardener 12 / Quality No.:
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monomers of isocyanates, amines and alcohols may be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

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

Acute toxicity estimate : 11,35 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Components:

Hexamethylene diisocyanate, oligomers, Hexamethylene diisocyanate, oligomers :

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

hexamethylene-di-isocyanate, hexamethylene-di-isocyanate :

Acute oral toxicity : LD50 (Rat): 746 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 0,124 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Components:

Hexamethylene diisocyanate, oligomers, Hexamethylene diisocyanate, oligomers:

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

Components:

Hexamethylene diisocyanate, oligomers, Hexamethylene diisocyanate, oligomers :

Assessment: May cause respiratory irritation.

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., Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin., The liquid splashed in the eyes may cause irritation and reversible damage., Based on the properties of the isocyanate components and considering toxicological data on similar



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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.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Short-term (acute) aquatic hazard

: 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:

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..

12.6 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

: The listed waste code numbers, according to the European Waste Catalogue, are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.



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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.

Waste key for the unused product : 080111 waste paint and varnish containing organic solvents or other dangerous substances

SECTION 14: Transport information

14.1 UN number

ADR : UN 1263
IMDG : UN 1263
IATA : UN 1263

14.2 UN proper shipping name

ADR : PAINT RELATED MATERIAL
IMDG : PAINT RELATED MATERIAL
IATA : PAINT RELATED MATERIAL

14.3 Transport hazard class(es)

ADR : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR
Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)

IMDG
Packing group : III
Labels : 3
EmS Code : F-E, S-E

IATA
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

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Fax: +49 (0) 40 / 75 10 33 75
www.mankiewicz.de

Bank Name	Ort	Kto.-Nr.	BLZ	BIC	IBAN
Deutsche Bank	Hamburg	600227300	200 700 00	DEUTDE33HAN	DE58 2007 0000 0600 2273 00
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

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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Packing group : III
Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

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.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern : Not applicable for Authorisation (Article 59).

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) : VOC content excluding water 25 %
265 g/l

Other regulations : 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.

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

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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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.
H336 May cause drowsiness or dizziness.
Acute Tox. Acute toxicity
Eye Irrit. Eye irritation

Further information

Further information

Other information : This safety datasheet complies with the requirements of regulation (EC) No 1907/2006(2015/830).

Department issuing safety data sheet

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