



Alfa GmbH
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614 Alfa Multi Blue

1. Identification of the substance / mixture
<p>1.1 Product identifier Trade name: Alfa Multi Blue</p>
<p>1.2 Relevant identified uses of the substance or mixture and uses advised against Nor further relevant information available</p> <p>Application of the substance / mixture: Polyurethane adhesive for construction with the help of a gun for PU foam</p>
<p>1.3 Details of the supplier of the safety data sheet Manufacturer / Supplier: Alfa GmbH Dr.-Rudolf-Schieber-Str. 11 – 15 73463 Westhausen / Germany Further information obtainable from: Phone: +49 (0) 7363 954460 Fax: +49 (0) 7363 9544625</p>
<p>1.4 Emergency telephone number: In case of emergency, consult physician.</p>

2. Hazards Identification																																	
<p>2.1 Classification of the substance of mixture Classification according to Regulation (EC) No. 1272/2008</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 2px;">Flam. Aerosol 1</td> <td style="width: 15%; padding: 2px;">H222-229</td> <td style="padding: 2px;">Extremely flammable aerosol. Pressurised container: May burst if heated.</td> </tr> <tr> <td style="padding: 2px;">Resp. Sens 1</td> <td style="padding: 2px;">H334</td> <td style="padding: 2px;">May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td> </tr> <tr> <td style="padding: 2px;">Carc. 2</td> <td style="padding: 2px;">H351</td> <td style="padding: 2px;">Suspected of causing cancer.</td> </tr> <tr> <td style="padding: 2px;">STOT RE 2</td> <td style="padding: 2px;">H373</td> <td style="padding: 2px;">May cause damage to organs through prolonged or repeated exposure.</td> </tr> <tr> <td style="padding: 2px;">Acute Tox. 4</td> <td style="padding: 2px;">H332</td> <td style="padding: 2px;">Harmful if inhaled.</td> </tr> <tr> <td style="padding: 2px;">Skin Irrit. 2</td> <td style="padding: 2px;">H315</td> <td style="padding: 2px;">Causes skin irritation.</td> </tr> <tr> <td style="padding: 2px;">Eye Irrit. 2</td> <td style="padding: 2px;">H319</td> <td style="padding: 2px;">Causes serious eye irritation.</td> </tr> <tr> <td style="padding: 2px;">Skin Sens. 1</td> <td style="padding: 2px;">H317</td> <td style="padding: 2px;">May cause an allergic skin reaction.</td> </tr> <tr> <td style="padding: 2px;">STOT SE 3</td> <td style="padding: 2px;">H335</td> <td style="padding: 2px;">May cause respiratory irritation.</td> </tr> <tr> <td style="padding: 2px;">Lact.</td> <td style="padding: 2px;">H362</td> <td style="padding: 2px;">May cause harm to breast-fed children.</td> </tr> <tr> <td style="padding: 2px;">Aquatic Chronic 4</td> <td style="padding: 2px;">H413</td> <td style="padding: 2px;">May cause long lasting harmful effects to aquatic life.</td> </tr> </table>	Flam. Aerosol 1	H222-229	Extremely flammable aerosol. Pressurised container: May burst if heated.	Resp. Sens 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Carc. 2	H351	Suspected of causing cancer.	STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.	Acute Tox. 4	H332	Harmful if inhaled.	Skin Irrit. 2	H315	Causes skin irritation.	Eye Irrit. 2	H319	Causes serious eye irritation.	Skin Sens. 1	H317	May cause an allergic skin reaction.	STOT SE 3	H335	May cause respiratory irritation.	Lact.	H362	May cause harm to breast-fed children.	Aquatic Chronic 4	H413	May cause long lasting harmful effects to aquatic life.
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Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

F+; Extremely flammable

R12: Extremely flammable.

R53-64: May cause long-term adverse effects in the aquatic environment. May cause harm to breastfed babies.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

Classification system:

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

2.2 Label elements

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:



Xn Harmful
 F+ Extremely flammable

Hazard-determining components of labelling:

diphenylmethanediisocyanate, isomeres and homologues

Risk phrases:

- 12 Extremely flammable.
- 20 Harmful by inhalation.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 40 Limited evidence of a carcinogenic effect.
- 42/43 May cause sensitisation by inhalation and skin contact.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- 53 May cause long-term adverse effects in the aquatic environment.
- 64 May cause harm to breastfed babies.

Safety phrases:

- 2 Keep out of the reach of children.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe spray.



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- 28 After contact with skin, wash immediately with plenty of soap and water.
- 36/37 Wear suitable protective clothing and gloves.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

Special labelling of certain preparations:

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
Contains isocyanates. See information supplied by the manufacturer
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3. Composition / Information on ingredients

3.1 Chemical characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues Xn R20-40-48/20; Xn R42/43; Xi R36/37/38 Carc. Cat. 3 Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	40-50%
CAS: 13674-84-5	tris(2-chlorisopropyl)-phosphate R52/53 Aquatic Chronic 3, H412	1-10%
CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether F+ R12 Flam. Gas 1, H220; Press. Gas, H280	1-10%
CAS: 75-28-5 EINECS-2	isobutane F+ R12 Flam. Gas 1, H220; Press. Gas, H280	1-5%
CAS: 85535-85-9 EINECS: 287-: 200-857477-0	alkanes, C14-17, chloro N R50/53 R64-66 Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Lact., H362	1-5%



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CAS: 86675-46-9	Halogenated polyetherpolyol Xn R22 Acute Tox. 4, H302	<5%
Additional information: For the wording of the listed risk phrases refer to section 16.		

4. First aid measures

- 4.1 Description of first aid measures**
General information:
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation:
 Supply fresh air and to be sure call for a doctor.
 In case of unconsciousness place patient stably in side position for transportation.
After skin contact:
 If skin irritation continues, consult a doctor.
 Immediately wash with water and soap and rinse thoroughly.
After eye contact:
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:
 Call for a doctor immediately.
- 4.2 Most important symptoms and effects, both acute and delayed**
 No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed**
 No further relevant information available.

5. Firefighting measures

- 5.1 Extinguishing media**
Suitable extinguishing agents:
 Foam, CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents:
 Water with full jet
- 5.2 Special hazards arising from the substance or mixture**
 In case of fire, the following can be released:
 Nitrogen oxides (NO_x)
 Carbon monoxide (CO)
 Hydrogen cyanide (HCN).

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5.3 Advice for firefighters**Protective equipment:**

Mouth respiratory protective device.

Additional information

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

7.1 Precautions for safe handling

Ensure that suitable extractors are available on processing machines

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities**Storage:****Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packaging with pressurized containers.



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Information about storage in one common storage facility:

Store away from oxidizing agents.
 Do not store together with acids.
 Do not store together with alkalis (caustic solutions).

Further information about storage conditions:

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
 Protect from humidity and water.
 Keep container tightly sealed.
 Store in cool, dry conditions in well sealed receptacles.
 Protect from heat and direct sunlight.

7.3 Specific end use(s)

No further relevant information available.

8. Exposure controls / personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues	
WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³
115-10-6 dimethyl ether	
WEL	Short-term value: 958 mg/m ³ , 500 ppm Long-term value: 766 mg/m ³ , 400 ppm

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the



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preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Aerosol
Colour:	According to product specification
Odour:	Characteristic

Change in conditions:-

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Ignition temperature:	199 °C
Self-igniting:	Product is not self-igniting.
Danger of explosion:	Heating may cause an explosion.
Explosion limits:	
Lower:	3.0 Vol %
Upper:	18.6 Vol %

Density: Not determined.

Solubility in/Miscibility with water: Insoluble.

Solvent content:

VOC (EU):	14.1 %
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9.2 Other information:

No further relevant information available.



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10. Stability and reactivity
10.1 Reactivity
10.2 Chemical stability Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions No dangerous reactions known.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials No further relevant information available.
10.6 Hazardous decomposition products Hydrogen cyanide (prussic acid) Carbon monoxide Nitrogen oxides (NO _x)

11. Toxicological information
11.1 Information on toxicological effects Acute toxicity: Primary irritant effect: on the skin: Irritant to skin and mucous membranes. on the eye: Irritating effect. Sensitization: Sensitization possible through inhalation. Sensitization possible through skin contact. Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Harmful Irritant

12. Ecological information
12.1 Toxicity Aquatic toxicity: No further relevant information available.



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12.2 Persistence and degradability No further relevant information available.
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available. Additional ecological information: General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
12.5 Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.
12.6 Other adverse effects No further relevant information available.

13. Disposal considerations
13.1 Waste treatment methods Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system. Uncleaned packaging: Recommendation: Disposal must be made according to official regulations.

14. Transport information	
14.1 UN-Number ADR, IMDG, IATA	UN1950
14.2 UN proper shipping name ADR IMDG IATA	1950 AEROSOLS AEROSOLS AEROSOLS, flammable
14.3 Transport hazard class(es) ADR Class	2 5F Gases.

Safety Data Sheet (MSDS)

2014/05



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Label	2.1
IMDG, IATA	
Class	2.1
Label	2.1
14.4 Packing group ADR, IMDG, IATA	Void
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user EMS Number:	Warning: Gases. F-D,S-U
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information: ADR Limited quantities (LQ)	1I
UN "Model Regulation":	UN1950, AEROSOLS, 2.1

15. Regulatory information

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

No further relevant information available.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.



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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
R12	Extremely flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R64	May cause harm to breastfed babies.
R66	Repeated exposure may cause skin dryness or cracking.

Abbreviations and acronyms:

Flam. Gas 1:	Flammable gases, Hazard Category 1
Flam. Aerosol 1:	Flammable aerosols, Hazard Category 1
Press. Gas:	Gases under pressure: Compressed gas
Acute Tox. 4:	Acute toxicity, Hazard Category 4
Skin Irrit. 2:	Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2:	Serious eye damage/eye irritation, Hazard Category 2
Resp. Sens. 1:	Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1:	Sensitisation - Skin, Hazard Category 1
Carc. 2:	Carcinogenicity, Hazard Category 2
Lact.:	Reproductive toxicity, Additional category, Effects on or via lactation
STOT SE 3:	Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2:	Specific target organ toxicity - Repeated exposure, Hazard Category 2
Aquatic Acute 1:	Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 1:	Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 3:	Hazardous to the aquatic environment - Chronic Hazard, Category 3
Aquatic Chronic 4:	Hazardous to the aquatic environment - Chronic Hazard, Category 4

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