



Safety data sheet

1. Substance/preparation and company identification

Trade name:

ASTI-V 170 B-Komp.

Application of the substance/ the preparation:

Polyurethane component

BEIL

Kunststoffproduktions- und Handelsgesellschaft mbH

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2. Hazards Identification

2.1. Classification of the substance or mixture

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

According to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4 (Inhalation - mist)	H332	Harmful if inhaled.
Eye Dam./Irrit. 2	H319	Causes serious eye irritation.
Skin Corr./Irrit. 2	H315	Causes skin irritation.
STOT SE 3	H335	May cause respiratory irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
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 inhalation exposure.

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Pictogram:



Signal Word:

Danger

Hazard Statement:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.



- H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated inhalative exposure.

Precautionary Statements (Prevention):

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 In case of inadequate ventilation wear respiratory protection.

Precautionary Statements (Response):

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements (Storage):

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

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

Labeling of special preparations (GHS):

As from 24 August 2023 adequate training is required before industrial or professional use.

EUH204: Contains isocyanates. May produce an allergic reaction.

Hazard determining component(s) for labelling: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate, Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

See section 12 - Results of PBT and vPvB assessment.

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Avoid any contact with the substance in case of known allergy to isocyanates, skin complaints, hypersensitivity reactions, chronic respiratory disease, asthmatic attacks or bronchial attacks.

3. Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Preparation based on: MDI

Regulatory relevant ingredients

Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)

Content (W/W): >= 10 % - <= 90 %

CAS Number: 9016-87-9

Acute Tox. 4 (Inhalation - mist)

Eye Dam./Irrit. 2

Skin Corr./Irrit. 2

STOT SE 3 (irr. to respiratory syst.)

Skin Sens. 1

Resp. Sens. 1

Carc. 2

STOT RE (Respiratory system) 2

H315, H317, H319, H332, H334, H335, H351, H373

EUH204

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate



Content (W/W): $\geq 1\%$ - $< 70\%$
 CAS Number: 101-68-8
 EC-Number: 202-966-0
 REACH registration number:
 01-2119457014-47
 INDEX-Number: 615-005-00-9

Acute Tox. 4 (Inhalation - mist)
 Eye Dam./Irrit. 2
 Skin Corr./Irrit. 2
 STOT SE 3 (irr. to respiratory syst.)
 Skin Sens. 1
 Resp. Sens. 1
 Carc. 2
 STOT RE (Respiratory system) 2
 H315, H317, H319, H332, H334, H335, H351, H373
 EUH204
 Specific concentration limit:
 Eye Dam./Irrit. 2: $\geq 5\%$
 Skin Corr./Irrit. 2: $\geq 5\%$
 Resp. Sens. 1: $\geq 0.1\%$

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

4. First-Aid Measures

4.1. Description of first aid measures

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in section 2 and/or in section 11.

Hazards: Symptoms can appear later.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

5. Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

dry powder, carbon dioxide, water spray, foam

Unsuitable extinguishing media for safety reasons:

water jet

5.2. Special hazards arising from the substance or mixture

Endangering substances: Carbon dioxide, carbon monoxide, hydrogen cyanide, nitrogen oxides, isocyanate

Advice: The substances/groups of substances mentioned can be released in case of fire. Evolution of fumes/fog.

5.3. Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.



Further information:

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures, see section 8. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol.

6.2. Environmental precautions

Do not empty into drains. Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

7.1. Precautions for safe handling

Provide suitable exhaust ventilation at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid aerosol formation. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gastight. Protect against moisture. Clean up contamination as soon as they occur. Provide basic employee training to prevent/minimize exposures. Products freshly manufactured from isocyanates can contain incompletely reacted isocyanates and other dangerous substances, e.g. primary aromatic amines. Industrial cleaning with aprotic polar solvents (meeting the IUPAC definition) may lead to formation of hazardous primary aromatic amine (>0,1%). See Section 11.

Protection against fire and explosion:

No special precautions necessary.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from water. Segregate from foods and animal feeds. Segregate from acids and bases.

Suitable materials for containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), tinned carbon steel (Tinplate), Stainless steel 1.4301 (V2)

Storage stability:

Protect against moisture.

If moisture enters isocyanate containers, CO₂ forms and pressure builds up.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

101-68-8: 4,4'-methylenediphenyl diisocyanate

Components with PNEC

101-68-8: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate

freshwater: 1 mg/l

marine water: 0.1 mg/l

intermittent release: 10 mg/l

STP: 1 mg/l

sediment (freshwater):



Exposure of sediment is not expected sediment (marine water):

Exposure of sediment is not expected soil: 1 mg/kg

Components with DNEL

101-68-8: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate
worker: Short-term exposure - systemic effects, Inhalation: 0.1 mg/m³
worker: Long-term exposure- systemic effects, Inhalation: 0.05 mg/m³
worker: Short-term exposure - local effects, Inhalation: 0.1 mg/m³
worker: Long-term exposure - local effects, Inhalation: 0.05 mg/m³
worker: Short-term exposure - systemic effects, dermal: 50 mg/kg
worker: Short-term exposure - local effects, dermal: 28.7 mg/cm²
consumer: Short-term exposure - systemic effects, Inhalation: 0.05 mg/m³
consumer: Long-term exposure- systemic effects, Inhalation: 0.025 mg/m³
consumer: Short-term exposure - local effects, Inhalation: 0.05 mg/m³
consumer: Long-term exposure - local effects, Inhalation: 0.025 mg/m³
consumer: Short-term exposure - systemic effects, dermal: 25 mg/kg
consumer: Short-term exposure - local effects, dermal: 17.2 mg/cm²
consumer: Short-term exposure - systemic effects, oral: 20 mg/kg

8.2. Exposure controls

Appropriate engineering controls

It is recommended to control the adherence of the DNEL/DMEL-values by measurements. Ensure an efficient ventilation of the working place (at least 3 air changes per hour).

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. (Combination filter EN 14387 A-P2)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

chloroprene rubber (CR) - 0.5 mm coating thickness

Unsuitable materials

polyvinylchloride (PVC) - 0.7 mm coating thickness

Polyethylene-Laminate (PE laminate) - ca. 0.1 mm coating thickness

Suitable materials that provide sufficient protection for industrial cleaning with aprotic polar solvents (meeting the IUPAC definition):

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

chloroprene rubber (CR) - 0.5 mm coating thickness

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Do not breathe vapour/spray. With products freshly manufactured from isocyanates body protection and chemical resistant protective gloves is recommended. Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Take off immediately all contaminated clothing. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

Environmental exposure controls



For information regarding environmental exposure controls, see Section 6.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter: liquid
 Form: liquid
 Colour: brown
 Odour: earthy, musty
 Odour threshold: Not determined due to respiratory tract sensitizing properties.
 solidification temperature: < 18 °C
 pH value: not applicable
 Boiling range: > 200 °C (1,013 mbar)
 Flash point: > 200 °C
 Auto-ignition temperature: > 530°C
 Evaporation rate: not applicable
 Flammability: not flammable
 Lower explosion limit: For liquids not relevant for classification and labelling.,
 The lower explosion point may be 5 - 15 °C below the flash point.
 Upper explosion limit: For liquids not relevant for classification and labelling.
 Ignition temperature: > 530 °C
 Vapour pressure: < 0.01 Pa (25 °C)
 Density: 1.21 g/cm³ (20 °C)
 Relative vapour density (air): not applicable
 Solubility in water: Hydrolyzes to form water-insoluble compounds.
 Partitioning coefficient n-octanol/water (log Kow):
 not applicable
 Thermal decomposition: > 230 °C
 Viscosity, dynamic: 270 mPa.s (25 °C)
 SADT: Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties

Fire promoting properties: not fire-propagating

Self-heating substances and mixtures

Self-heating ability: It is not a substance capable of spontaneous heating according to UN transport regulations class 4.2.

Corrosion to metals

Other safety characteristics

Radioactivity: not radioactive for transport purposes

Miscibility with water: Reacts with water.

Other Information: If necessary, information on other physical and chemical parameters are indicated in this section.

SAPT-Temperature: Product does not fulfil criteria for polymerizing substances according to transport regulations.

Evaporation rate: Value can be approximated from Henry's Law Constant or vapor pressure.

10. Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

Reactions with water/air: Reaction with water

Flammable gases: no

Toxic gases: no



10.2. Chemical stability

The product is chemically stable.

Peroxides:

The product does not contain peroxides. The product/the substance has not a tendency towards the formation of peroxide.

10.3. Possibility of hazardous reactions

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis. Reacts with amines. Risk of exothermic reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

The product is chemically stable.

10.4. Conditions to avoid

Avoid moisture.

10.5. Incompatible materials

Substances to avoid:

acids, alcohols, amines, water, alkaline

10.6. Hazardous decomposition products

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

11. Toxicological Information

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

Assessment of acute toxicity:

Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single skin contact. Virtually nontoxic after a single ingestion.

Experimental/calculated data:

(by inhalation):The substance from the isocyanate substance class has been tested in a form (respirable aerosol) that is different from the forms in which the product is placed on the market and used. Therefore, the test result is not adequate for the purpose of classification and labelling of the product. Based on expert judgement and available data, a modified classification and labeling for acute inhalation toxicity is justified. The generation of a respirable aerosol must be prevented!

Information on: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate

Experimental/calculated data:

LC50 rat (by inhalation): > 2.24 mg/l 1 h (OECD Guideline 403)

The European Union (EU) has classified this substance as 'harmful'. An aerosol was tested.

(by inhalation):The substance from the isocyanate substance class has been tested in a form (respirable aerosol) that is different from the forms in which the product is placed on the market and used. Therefore, the test result is not adequate for the purpose of classification and labelling of the product. Based on expert judgement and available data, a modified classification and labeling for acute inhalation toxicity is justified. The generation of a respirable aerosol must be prevented!

Information on: Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)

Experimental/calculated data:

LC50 rat (by inhalation): approx. 0.493 mg/l 4 h

An aerosol was tested.

(by inhalation):The substance from the isocyanate substance class has been tested in a form (respirable aerosol) that is different from the forms in which the product is placed on the market and used. Therefore, the test result is not adequate for the purpose of classification and labelling of the product. Based on expert judgement and available data, a modified classification and labeling for acute inhalation toxicity is justified. The generation of a respirable aerosol must be prevented!

Irritation

Assessment of irritating effects:

Eye contact causes irritation. Skin contact causes irritation.

Information on: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate

Experimental/calculated data: Skin corrosion/irritation

rabbit: Irritant. (OECD Guideline 404)



Information on: Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)

Experimental/calculated data:

Skin corrosion/irritation: Irritant.

Information on: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate

Experimental/calculated data: Serious eye damage/irritation

rabbit: non-irritant (OECD Guideline 405)

Information on: Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)

Experimental/calculated data:

Serious eye damage/irritation: Irritant.

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract.

Information on: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate

Experimental/calculated data:

Buehler test guinea pig: skin sensitizing

Mouse Local Lymph Node Assay (LLNA) mouse: skin sensitizing

other guinea pig: respiratory sensitizing

Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Germ cell mutagenicity

Assessment of mutagenicity:

The chemical structure does not suggest a specific alert for such an effect.

Carcinogenicity

Assessment of carcinogenicity:

A carcinogenic effect cannot safely be ruled out.

Industrial cleaning with aprotic polar solvents (meeting the IUPAC definition) may lead to formation of hazardous primary aromatic amine (>0,1%). Primary aromatic amines are chemicals that are regarded as potentially carcinogenic for humans based on animal testing. Some of these chemicals are known human carcinogens. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.

A carcinogenic effect cannot safely be ruled out.

Industrial cleaning with aprotic polar solvents (meeting the IUPAC definition) may lead to formation of hazardous primary aromatic amine (>0,1%). Primary aromatic amines are chemicals that are regarded as potentially carcinogenic for humans based on animal testing. Some of these chemicals are known human carcinogens. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.

Information on: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate Assessment of carcinogenicity:

Indication of possible carcinogenic effect in animal tests. However, the relevance of this result for humans is unclear. IARC Group 3 (not classifiable as to human carcinogenicity).

Industrial cleaning with aprotic polar solvents (meeting the IUPAC definition) may lead to formation of hazardous primary aromatic amine (>0,1%). Primary aromatic amines are chemicals that are regarded as potentially carcinogenic for humans based on animal testing. Some of these chemicals are known human carcinogens. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.

Information on: Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)

Assessment of carcinogenicity:

A carcinogenic effect cannot safely be ruled out.

Industrial cleaning with aprotic polar solvents (meeting the IUPAC definition) may lead to formation of hazardous primary aromatic amine (>0,1%). Primary aromatic amines are chemicals that are regarded as potentially carcinogenic for humans based on animal testing. Some of these chemicals are known human carcinogens. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.



Reproductive toxicity

Assessment of reproduction toxicity:

The chemical structure does not suggest a specific alert for such an effect.

Developmental toxicity

Assessment of teratogenicity:

The chemical structure does not suggest a specific alert for such an effect.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Repeated inhalation exposure may affect certain organs. Repeated exposure to the substance by dermal administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by oral administration leads to effects similar to those found after single exposure.

Information on: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-di-isocyanate

Experimental/calculated data:

Chronic Toxicity

rat Inhalation, olfactory epithelium

NOAEL: 0.2 mg/m³

LOAEL: 1 mg/m³

The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure. Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Information on: Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)

Experimental/calculated data:

NOEL

rat by inhalation

Aspiration hazard

No aspiration hazard expected.

Interactive effects

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

The product does not contain a substance that is considered to have endocrine disrupting properties according to EU REACH Article 57(f).

Other information

Other relevant toxicity information

The product has not been tested. The statement has been derived from the properties of the individual components.

12. Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Hydrolyzes to form water-insoluble compounds. Experience shows this product to be inert and non-degradable.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

Does not significantly accumulate in organisms.

Does not significantly accumulate in organisms.

12.4. Mobility in soil



Assessment transport between environmental compartments:
 Adsorption in soil: Adsorption to solid soil phase is not expected. Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Endocrine disrupting properties

The product does not contain a substance that is considered to have endocrine disrupting properties according to EU REACH Article 57(f).

12.7. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.8. Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

Do not release untreated into natural waters. Do not allow to enter soil, waterways or waste water channels.

13. Disposal Considerations

13.1. Waste treatment methods

The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignments.

Incinerate in suitable incineration plant, observing local authority regulations.

Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Waste key:

08 05 01□ waste isocyanates

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

ADR Not classified as a dangerous good under transport regulations

RID Not classified as a dangerous good under transport regulations

Inland waterway transport

AND Not classified as a dangerous good under transport regulations

Sea transport

IMDG Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO Not classified as a dangerous good under transport regulations

14.1. UN number or ID number

See corresponding entries for "UN number or ID number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)



See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information

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

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 56, 74

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):

Listed in above regulation: no

If it is intended to use materials for the manufacture of consumer goods (e. g. products which will come into contact with foodstuffs or with the skin, toys) or medical products, national and international regulations have to be observed. Where no regulations exist, consumer goods or medical products must at least comply with European legislation. We recommend contacting our Sales and our Product Safety departments.

15.2. Chemical Safety Assessment

Assessment of safe use has been performed for the mixture and the result is documented in section 7 and 8 of the SDS.

16. Other Information

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts.

The methodologies used are mentioned at the respective test results.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Corr./Irrit.	Skin corrosion/irritation
STOT SE	Specific target organ toxicity — single exposure
Skin Sens.	Skin sensitization
Resp. Sens.	Respiratory sensitization
Carc.	Carcinogenicity
STOT RE	Specific target organ toxicity — repeated exposure
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated inhalative exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.



Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It 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. This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.