

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 11/18/2021 Revision date: 11/18/2021 Supersedes version of: 11/18/2021 Version: 5.1

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

1.1. Product identifier

Product form : Mixture

 Trade name
 : 2K FAST FIX BLACK 60 SEC (B)

 UFI
 : QPMV-T0H0-V00X-02WW

Product code : 7021

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

1.2.1. Relevant identified uses

Main use category : Professional use Use of the substance/mixture : 2K-adhesives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Pro Part International Molenakker , 3 5953 TW Reuver – Limburg Nederland

T+31 (0) 77 476 2204

info@propart-international.com - www.propart-international.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhal.), Category 4 H332 Skin corrosion/irritation, Category 2 H315 Serious eye damage/eye irritation, Category 2 H319 Respiratory sensitisation, Category 1 H334 Skin sensitisation, category 1A H317 Carcinogenicity, Category 2 H351 Specific target organ toxicity — Single exposure, Category 3, Respiratory H335 tract irritation Specific target organ toxicity — Repeated exposure, Category 2 H373

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Potential effects (delayed or immediate) can be expected after short or long-term exposure.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

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

Hazard pictograms (CLP)





GHS07

GHS08

Signal word (CLP) : Danger

Contains : 4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS

Hazard statements (CLP) : 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 (if inhaled, if swallowed).

H373 - May cause damage to organs (respiratory tract) through prolonged or repeated

exposure (if inhaled).

Precautionary statements (CLP) : P201 - Obtain special instructions before use.

P260 - Do not breathe dust, fume, gas, mist, spray, vapours.

P280 - Wear protective clothing, eye protection, face protection, protective gloves.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P313 - IF exposed or concerned: Get medical advice/attention.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P501 - Dispose of Contents and container, to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

EUH-statements : EUH204 - Contains isocyanates. May produce an allergic reaction.

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

2.3. Other hazards

Other hazards which do not result in classification : Mixture does not contain substance (s) classified as PBT or vPvB in concentrations above

0,1%

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

No data available

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS substance with a Community workplace exposure limit	CAS-No.: 9016-87-9 EC-No.: 618-498-9	55 – 100	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1A, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS	CAS-No.: 9016-87-9 EC-No.: 618-498-9	(0.1 ≤C < 100) Resp. Sens. 1, H334 (5 ≤C < 100) Skin Irrit. 2, H315 (5 ≤C < 100) Eye Irrit. 2, H319 (5 ≤C < 100) STOT SE 3, H335

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Do not leave the affected person unattended. Getting the victim out of the danger zone. In case of loss of conscience place the victim in the recovery position. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Wash contaminated clothing before reuse.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: Immediately call a POISON CENTER/doctor. Wash with plenty of soap and water.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. immediate medical advice.

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

Symptoms/effects Symptoms/effects after inhalation	 Refer to section 11. May cause damage to organs through prolonged or repeated exposure. Respiratory tract irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye damage.
Chronic symptoms	: Suspected carcinogen.

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

For specialist advice, the doctor must contact the NVCI or Anti-Poison Center.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2), powder, alcohol-resistant foam, water spray. Coordinate fire-fighting equipment to the environment.

Unsuitable extinguishing media : Do not use straight streams. Water is not effective in extinguishing the fire but can be used to cool the closed containers exposed to fire to prevent them from bursting and exploding.

5.2. Special hazards arising from the substance or mixture

Fire hazard : If the product is involved in a fire in large quantities, it can significantly aggravate the fire.

Hazardous decomposition products in case of fire : Avoid inhalation of combustion products.

5.3. Advice for firefighters

Precautionary measures fire : In case of fire and/or explosion do not breathe fumes.

Firefighting instructions : Co-ordinate fire-fighting measures to the fire surroundings. On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a

water spray.

11/18/2021 (Revision date) EU - en 3/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Protection during firefighting : Wear fire/flame resistant/retardant clothing. Self-contained breathing apparatus. Standard

EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters. Standard EN 137 - Self-contained open-circuit compressed air breathing

apparatus with full face mask. Boots.

Other information : Move containers from fire area if it can be done without personal risk. Collect contaminated

extinguishing water separately and must not enter the sewage system.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Evacuate personnel to a safe area. Ventilate spillage area.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and eye or face protection. Concerning personal protective

equipment to use, see section 8.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection". Wear breathing apparatus if

exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Do not discharge into drains or rivers. Do not allow material to contaminate ground water system.

6.3. Methods and material for containment and cleaning up

For containment : Covering drains.

Methods for cleaning up : Suck up the spilled/leaked product in a suitable container. Refer to chapter 10. Absorb

remaining liquid with sand or inert absorbent and remove to safe place. Ensure adequate air ventilation. For disposal of contaminated materials refer to section 13: "Disposal

considerations".

6.4. Reference to other sections

Hazardous combustion products, See Heading 5. Wear personal protective clothing (see chapter 8). Incompatible materials, For further information refer to section 10.5. For disposal of solid materials or residues refer to section 13: "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Local and general ventilation. Use only in well-ventilated areas. Obtain special instructions

before use. Do not handle until all safety precautions have been read and understood. Discharge into the environment must be avoided. Do not eat, drink or smoke when using

this product.

Hygiene measures : Always wash hands after handling the product. Do not eat, drink or smoke when using this

product. Remove contaminated clothing and protective equipment before entering eating areas. Do not store food and drinks together with chemicals. Do not use chemical containers for foodstuffs. Keep away from food, drink and animal feeding stuffs.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : do not store in unlabelled containers. Store, if possible, in a cool, well ventilated place away

from incompatible materials. For further information, refer to section 10 : "Stability and

Reactivity".

Incompatible products : Strong acids. Strong bases. Oxidizing agent.

Heat and ignition sources : Avoid high temperatures.

Storage area : Protect from sunlight. Store in a well-ventilated place. Vapour extraction.

7.3. Specific end use(s)

No data available.

11/18/2021 (Revision date) EU - en 4/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS (9016-87-9)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA [ppm]	0.005 ppm Exposure limit value -TLV(ACGIH) 2020	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS (9016-87-9)		
DNEL/DMEL (Workers)		
Acute - systemic effects, dermal	50 mg/kg bodyweight/day	
Acute - systemic effects, inhalation	0.1 mg/m³	
Acute - local effects, dermal	28.7 mg/cm ²	
Acute - local effects, inhalation	0.1 mg/m³	
Long-term - systemic effects, inhalation	0.05 mg/m³	
Long-term - local effects, inhalation	0.05 mg/m³	
DNEL/DMEL (General population)		
Acute - systemic effects, dermal	25 mg/kg bodyweight/day	
Acute - systemic effects, inhalation	0.05 mg/m³	
Acute - systemic effects, oral	20 mg/kg bodyweight/day	
Acute - local effects, dermal	17.2 mg/cm ²	
Acute - local effects, inhalation	0.05 mg/m³	
Long-term - systemic effects, inhalation	0.025 mg/m³	
Long-term - local effects, inhalation	0.025 mg/m³	
PNEC (Water)		
PNEC aqua (freshwater)	1 mg/l	
PNEC aqua (marine water)	0.1 mg/l	
PNEC aqua (intermittent, freshwater)	10 mg/l	
PNEC (Soil)		
PNEC soil	1 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	1 mg/l	

8.1.5. Control banding

No additional information available

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment. Considering that appropriate engineering controls should always be prioritized over personal protective equipment, good ventilation should be provided in the workplace, using effective local exhaust ventilation. The workplace should be equipped with an emergency shower and eye-rinsing facility. Sink for eyes and face. Try to keep exposure levels as low as possible through maximum assured protection by means of shorter replacement times.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses. Dust/aerosol mask with filter type A2/P3, P2, P3.

Personal protective equipment symbol(s):









8.2.2.1. Eye and face protection

Eye protection

Safety glasses. Use eye protection according to EN 166, designed to protect against liquid splashes.

8.2.2.2. Skin protection

Skin and body protection:

Long sleeved protective clothing. Safety foot-wear. cat. II. In case of using personal protective equipment it should have CE marking in accordance with Directive 89/686/EC. For more

information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. EN ISO 20344. Remove contaminated clothing and shoes. Wash with soap and water

Hand protection:

Nitrile-rubber protective gloves. Chemical resistant gloves (according to European standard EN 374 or equivalent). Category III. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Choose glove material taking into account the penetration times, the permeation degrees and the degradation. Refer to the recommendations of the supplier. Since the product consists of several substances, the durability of the glove material cannot be estimated and needs to be tested before use. Gloves should be replaced when worn out. This depends on the duration and method of use. For continuous contact, we recommend gloves with a breakthrough time of at least 240 minutes, with a breakthrough time of more than 480 minutes being preferred. We recommend the same for short-term work or splash protection. We are aware that suitable gloves that provide this level of protection may not be available. In that case, a shorter breakthrough time may be acceptable, as long as the procedures for appropriate maintenance and timely replacement are followed. The thickness of the glove is not a good measure of the glove's resistance to a chemical, as it depends on the exact composition of the material the gloves are made of. Layer thickness: 0,5 mm. Permeation level: 5

8.2.2.3. Respiratory protection

Respiratory protection:

Full / half / quarter mask (EN 136/140). Type ABEK-P2 (combination filter for gases, vapors and particles, color code: brown / gray / yellow / green / white). Air-fed respiratory protective equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational exposure limit

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment. Emissions from production processes, including emissions from ventilation equipment, must be controlled for compliance with environmental protection legislation.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Brown.
Odour : Characteristic.
Odour threshold : Not available

Melting point : 5 °C Calculated value, based on a component of the mixture

Freezing point : Not available

Boiling point : > 300 °C Calculated value, based on a component of the mixture

Flammability : No data available
Explosive properties : No data available.
Oxidising properties : No data available.
Explosive limits : Not available
Lower explosive limit (LEL) : Not available
Upper explosive limit (UEL) : Not available

Flash point : 205 °C Calculated value, based on a component of the mixture

Auto-ignition temperature : > 600 °C (fluid & gases)Calculated value, based on a component of the mixture

Decomposition temperature : Not available pH : Not determined.

Viscosity, kinematic : 3333333333333333 mm²/s

Viscosity, dynamic : 4000 mPa-s
Solubility : insoluble in water.
Partition coefficient n-octanol/water (Log Kow) : Not available

Vapour pressure : 0.01 Pa Calculated value, based on a component of the mixture

Vapour pressure at 50 °C : Not available Density : 1.2 g/m³ Relative density : Not available Relative vapour density at 20 °C : Not available Particle size : not relevant liquid Particle size distribution : No data available : No data available Particle shape : No data available Particle aspect ratio : No data available Particle aggregation state Particle agglomeration state : No data available Particle specific surface area : No data available Particle dustiness : No data available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0 European Directive 2010/75 / EU

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

10.4. Conditions to avoid

Normal precautions for handling chemicals should be observed.

11/18/2021 (Revision date) EU - en 7/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

10.5. Incompatible materials

Oxidisable materials.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous combustion products, See Heading 5.

SECTION 11: Toxicological information

11.1. Information on nazard classes as defined in Regulation (EC) No 12/2/2008		
Acute toxicity (oral)	: If ingested it can cause health problems with abdominal pain with burning sensation, nausea and vomiting.	
Acute toxicity (dermal)	: Acute Effects: Contact with eyes may cause irritation with symptoms such as: red eyes, oedema, pain and watery eyes. On contact with the skin, the product may cause irritation, with rashes, oedema, dry patches and scaling.	
Acute toxicity (inhalation)	 Not classified. This product is harmful by inhalation. Symptoms of exposure may include burning and irritation of the eyes, mouth, nose, throat, cough, difficulty breathing, dizziness, headache, nausea and vomiting. In the most severe cases, inhalation of the product may cause inflammation and edema of the throat and bronchi, chemical pneumonia and pulmonary oedema. This product may produce functional disturbances or morphological changes through repeated and prolonged exposure and/or care must be taken as it may accumulate in the human organism. Acute Effects: Inhalation of the product causes irritation of the lower and upper respiratory tract, manifesting itself in coughing and breathing problems; at higher concentrations it can also cause pulmonary edema. 	
Additional information	: No experimental data are available for the mixture with regard to toxicological	

characteristics.

2K FAST FIX BLACK 60 SEC (B)		
ATE CLP (vapours)	15.71 mg/l/4h	
Additional information	No experimental data are available for the mixture with regard to toxicological characteristics. The data is based on the toxicological properties of the components of the product	
4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS (9016-87-9)		
LD50 oral	> 10000 mg/kg rat	
LD50 dermal rabbit	> 9400 mg/kg	
LC50 Inhalation - Rat (Dust/Mist)	0.49 mg/l/4h	
LC50 Inhalation - Rat (Vapours)	0.387 mg/l/4h	
ATE CLP (vapours)	11 mg/l/4h	
Skin corrosion/irritation	: Causes skin irritation. pH: Not determined.	
Serious eye damage/irritation	: Causes serious eye irritation.	

pH: Not determined.

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

11/18/2021 (Revision date) EU - en 8/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Additional information :	Inhalation of the product causes sensitization, which can cause a range of inflammations, in most cases of an obstructive nature, affecting the airways. Sometimes these symptoms manifest themselves at the same time as a cold or asthma present. The damage to the respiratory tract depends on the inhaled dose of the product, i.e. the concentration of the product in the working environment and the duration of exposure. When the product comes into contact with the skin, it can cause sensitization (contact dermatitis). This dermatitis arises as a result of a skin inflammation, which starts on those areas of the skin that are repeatedly in contact with the sensitizing substance. The skin conditions may include eye oedema, nodules, vesicles, papules, scaling, fissures and pusproducing signs vary depending on the stage of the disease and where it manifests itself. In acute phases there is mainly erythema, edema and pus formation. In chronic phases one mainly sees flaking, dry spots, fissures and skin thickenings.
Germ cell mutagenicity :	Not classified
<i>,</i>	Suspected of causing cancer (if inhaled, if swallowed).
Additional information :	However, insufficient information is available to make a full assessment volledig
Reproductive toxicity :	Not classified
STOT-single exposure :	May cause respiratory irritation.
4,4'-METHYLENEDIPHENYL DIISOCYANATE,	OLIGOMERS (9016-87-9)
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure :	May cause damage to organs (respiratory tract) through prolonged or repeated exposure (if inhaled).

4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS (9016-87-9)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

: Not classified Aspiration hazard

2K FAST FIX BLACK 60 SEC (B)	
Viscosity, kinematic	333333333333 mm²/s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Other information

: This product contains isocyanates. The manufacturer's information is as follows: 'Ready to use' products containing isocyanates can have an irritating effect on the mucous membranes, especially the respiratory tract and can cause hypersensitivity reactions. Inhalation of vapors and aerosols may cause sensitization. Therefore, when handling products containing isocyanates, precautions should be observed that apply to all product types with solvents, where inhalation of vapors and aerosols should be avoided. will be avoided. Persons who have previously had allergic or asthmatic reactions or who are prone to respiratory diseases should not carry out work involving the use of isocyanatecontaining products.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The experimental information related to the eco-toxicological properties of the product itself is not available.

Hazardous to the aquatic environment, short-term (acute)

Not classified

Hazardous to the aquatic environment, long-term

: Not classified

Additional information

: Handle in accordance with good industrial hygiene and safety practice. Do not allow product to spread into the environment. Immediately notify the competent authorities if the product has reached running water or has contaminated the soil or vegetation.

11/18/2021 (Revision date) EU - en 9/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

4,4'-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS (9016-87-9)	
LC50 - Fish [1]	> 1000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l 24h
NOEC chronic algae	1640 mg/l 72h

12.2. Persistence and degradability

2K FAST FIX BLACK 60 SEC (B)

Persistence and degradability No information available.

12.3. Bioaccumulative potential

2K FAST FIX BLACK 60 SEC (B)

Bioaccumulative potential No additional information available.

12.4. Mobility in soil

2K FAST FIX BLACK 60 SEC (B)

Mobility in soil No information available

12.5. Results of PBT and vPvB assessment

2K FAST FIX BLACK 60 SEC (B)

Results of PBT assessment Mixture does not contain substance (s) classified as PBT or vPvB in concentrations above 0,1%.

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: No information available

12.7. Other adverse effects

Other adverse effects : No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

: Empty containers should be taken for recycling, recovery or waste in accordance with local regulation. Product residues are to be considered as hazardous waste. This material and its container must be disposed of as hazardous. Disposal of this packaging should at all times comply with the waste disposal legislation and any regional local authority requirements.

Product/Packaging disposal recommendations

: Container remains hazardous when empty. Continue to observe all precautions. This material and its container must be disposed of in a safe way, and as per local legislation.

SECTION 14: Transport information

In accordance with

14.1. UN number or ID number

14.2. UN proper shipping name

11/18/2021 (Revision date) EU - en 10/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

No supplementary information available

14.6. Special precautions for user

Special transport precautions : Not classified as dangerous in the meaning of transport regulations

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	2K FAST FIX BLACK 60 SEC (B) ; 4,4'- METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
56.	4,4'- METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS	Methylenediphenyl diisocyanate (MDI)
74.	4,4'- METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS	Diisocyanates, O = C=N-R-N = C=O, with R an aliphatic or aromatic hydrocarbon unit of unspecified length

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content

: 0 European Directive 2010/75 / EU

Other information, restriction and prohibition regulations

: There is no need for preventive medical examinations of the users of this product. Provided that the results of the hazard assessment show that there is only a limited risk to the health and safety of workers, the measures prescribed by Directive 98/24/EC.

Directive 2012/18/EU (SEVESO III)

Seveso Additional information : None

11/18/2021 (Revision date) EU - en 11/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

15.1.2. National regulations

Germany

Water hazard class (WGK) 2

Hazardous Incident Ordinance (12. BlmSchV)

Storage class (LGK, TRGS 510)

: LGK 10 - Combustible liquids

Netherlands

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

SZW-lijst van reprotoxische stoffen – Borstvoeding

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen - Ontwikkeling

Denmark

Danish National Regulations

: WGK: 1, Slightly hazardous to water (Classification according to AwSV, Annex 1) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

: None of the components are listed : None of the components are listed : None of the components are listed : None of the components are listed

: None of the components are listed

: Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with

the product

Persons suffering from asthma or eczema and persons who have chronic lung diseases,

skin or respiratory allergies to isocyanates should not work with the material

The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal

The requirements from the Danish Working Environment Authorities regarding work with

carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of chang	Indication of changes		
Section	Changed item	Change	Comments
	Supersedes version of	Added	
	Revision date	Modified	
	Regulatory framework	Added	
	Extra phrases	Added	
	Seveso Additional information	Added	
	Adverse effects on the environment caused by endocrine disrupting properties	Added	
	Additional information	Added	
	Acute toxicity (inhalation) - comment	Added	
	Acute toxicity (dermal) - comment	Added	
	Respiratory or skin sensitisation - comment	Added	
	Acute toxicity (oral) - comment	Added	
	Issue date	Modified	
1.1	Trade name	Added	
1.2	Use of the substance/mixture	Added	
1.2	Main use category	Added	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Removed	

11/18/2021 (Revision date) EU - en 12/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Indication of changes			
Section	Changed item	Change	Comments
2.2	Precautionary statements (CLP)	Modified	
2.3	Other hazards which do not result in classification	Added	
3	Composition/information on ingredients	Modified	
4.1	First-aid measures after ingestion	Modified	
4.1	First-aid measures after eye contact	Modified	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures after inhalation	Modified	
4.1	First-aid measures general	Removed	
4.2	Chronic symptoms	Added	
4.2	Symptoms/effects after eye contact	Modified	
4.2	Symptoms/effects after skin contact	Modified	
4.2	Symptoms/effects after inhalation	Modified	
4.2	Symptoms/effects	Added	
4.3	Other medical advice or treatment	Modified	
5.1	Suitable extinguishing media	Modified	
5.1	Unsuitable extinguishing media	Modified	
5.2	Fire hazard	Modified	
5.2	Hazardous decomposition products in case of fire	Modified	
5.3	Other information	Added	
5.3	Firefighting instructions	Modified	
5.3	Protection during firefighting	Modified	
6.1	Protective equipment	Modified	
6.1	Emergency procedures	Removed	
6.2	Environmental precautions	Modified	
6.3	Methods for cleaning up	Modified	
6.3	Other information	Removed	
6.4	Reference to other sections (8, 13)	Modified	
7.1	Hygiene measures	Removed	
7.1	Precautions for safe handling	Modified	
7.2	Storage conditions	Modified	
7.3	Specific end uses	Added	
8.2	Hand protection	Modified	
8.2	Personal protective equipment	Modified	
8.2	Environmental exposure controls	Modified	
8.2	Respiratory protection	Modified	
8.2	Skin and body protection	Modified	
8.2	Appropriate engineering controls	Modified	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Indication of changes			
Section	Changed item	Change	Comments
9.1	Viscosity, dynamic	Modified	
9.1	Oxidising properties	Added	
9.1	Explosive properties	Added	
9.1	Solubility	Added	
9.1	Odour	Added	
9.2	VOC content	Added	
10.1	Reactivity	Modified	
10.2	Chemical stability	Modified	
10.3	Possibility of hazardous reactions	Modified	
10.4	Conditions to avoid	Modified	
10.5	Incompatible materials	Added	
10.6	Hazardous decomposition products	Modified	
11.1	ATE CLP (vapours)	Added	
11.1	ATE CLP (gases)	Added	
11.1	ATE CLP (dust,mist)	Added	
11.1	Additional information	Added	
11.1	Other information	Added	
11.1	Additional information	Added	
11.1	Additional information	Added	
11.1	Additional information	Added	
12.1	Ecology - general	Modified	
12.2	Persistence and degradability	Added	
12.3	Bioaccumulative potential	Added	
12.4	Mobility in soil	Added	
12.5	Results of PBT assessment	Added	
12.6	Other adverse effects	Added	
13.1	Product/Packaging disposal recommendations	Added	
13.1	Waste treatment methods	Modified	
15.1	Storage class (LGK, TRGS 510)	Added	
15.1	Other information, restriction and prohibition regulations	Added	
15.1	VOC content	Added	
16	Training advice	Added	
16	Data sources	Added	
16	Other information	Added	
16	Abbreviations and acronyms	Added	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:		
CAS-No.	Chemical Abstract Service number	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EN	European Standard	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Dose leading to death in 50% of a test population (median lethal dose)	
PBT	Persistent Bioaccumulative Toxic	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
VOC	Volatile Organic Compounds	
vPvB	Very Persistent and Very Bioaccumulative	

Data sources

: Classification procedure: . Physico-chemical hazards: The classification of the product is derived from the criteria of the CLP Regulation, Annex I, Part 2. The methods of assessment of the chemical and physical properties are presented in Part 9. Health hazards: The classification of the product is based on the calculation methods of Annex I of CLP, Part 3, unless otherwise specified in Part 11. Environmental hazards: The classification of the product is based on the calculation methods of Annex I of CLP, Part 4, unless otherwise specified in Part 12.

Training advice

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

11/18/2021 (Revision date) EU - en 15/18

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Other information

- : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. R 3(b): 1. Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and iokes.
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
 - 2. Articles not complying with paragraph 1 shall not be placed on the market.
 - 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and,
 - present an aspiration hazard and are labelled with R65 or H304,
 - 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
 - 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:

 (a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil or even sucking the wick of lamps may lead to life-threatening lung damage';
 - (b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
 - (c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
 - 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
 - 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission. R56: 1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging:
 - (a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC;
 - (b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures:
 - "— 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."

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives. R74: 1. Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless: (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s). 2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless: (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: "As from 24 August 2023 adequate training is required before industrial or professional use". 3. For the purpose of this entry "industrial and professional user(s)" means any worker or self-employed worker handling diisocyanates on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) or supervising these tasks. 4. The training referred to in point (b) of paragraph 1 shall include the instructions for the control of dermal and inhalation exposure to diisocyanates at the workplace without prejudice to any national occupational exposure limit value or other appropriate risk management measures at national level. Such training shall be conducted by an expert on occupational safety and health with competence acquired by relevant vocational training. That training shall cover as a minimum: (a) the training elements in point (a) of paragraph 5 for all industrial and professional use(s). (b) the training elements in points (a) and (b) of paragraph 5 for the following uses: — handling open mixtures at ambient temperature (including foam tunnels); — spraying in a ventilated booth; — application by roller; — application by brush; — application by dipping and pouring; — mechanical post treatment (e.g. cutting) of not fully cured articles which are not warm anymore; — cleaning and waste; — any other uses with similar exposure through the dermal and/or inhalation route; (c) the training elements in points (a), (b) and (c) of paragraph 5 for the following uses: — handling incompletely cured articles (e.g. freshly cured, still warm); — foundry applications; — maintenance and repair that needs access to equipment; — open handling of warm or hot formulations (> 45 °C); — spraying in open air, with limited or only natural ventilation (includes large industry working halls) and spraying with high energy (e.g. foams, elastomers); — and any other uses with similar exposure through the dermal and/or inhalation route. 5. Training elements: (a) general training, including on-line training, on: — chemistry of diisocyanates; — toxicity hazards (including acute toxicity); — exposure to diisocyanates; — occupational exposure limit values; — how sensitisation can develop; — odour as indication of hazard; — importance of volatility for risk; — viscosity, temperature, and molecular weight of diisocyanates; — personal hygiene; personal protective equipment needed, including practical instructions for its correct use and its limitations; — risk of dermal contact and inhalation exposure; — risk in relation to application process used; — skin and inhalation protection scheme; — ventilation; cleaning, leakages, maintenance; — discarding empty packaging; — protection of bystanders; — identification of critical handling stages; — specific national code systems (if applicable): — behaviour-based safety: — certification or documented proof that training has been successfully completed (b) intermediate level training, including on-line training, on: — additional behaviour-based aspects; — maintenance; — management of change; evaluation of existing safety instructions; — risk in relation to application process used; certification or documented proof that training has been successfully completed (c) advanced training, including on-line training, on: — any additional certification needed for the specific uses covered; — spraying outside a spraying booth; — open handling of hot or warm formulations (> 45 °C); — certification or documented proof that training has been successfully completed 6. The training shall comply with the provisions set by the Member State in which the industrial or professional user(s) operate. Member States may implement or continue to apply their own national requirements for the use of the substance(s) or mixture(s), as long as the minimum requirements set out in paragraphs 4 and 5 are met. 7. The supplier referred to in point (b) of paragraph 2 shall ensure that the recipient is provided with training material and courses pursuant to paragraphs 4 and 5 in the official language(s) of the Member State(s) where the substance(s) or mixture(s) are supplied. The training shall take into consideration the specificity of the products supplied, including composition, packaging, and design. 8. The employer or self-employed shall document the successful completion of the training referred to in paragraphs 4 and 5. The training shall be renewed

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

at least every five years. 9. Member States shall include in their reports pursuant to Article 117(1) the following information: (a) any established training requirements and other risk management measures related to the industrial and professional uses of diisocyanates foreseen in national law; (b) the number of cases of reported and recognised occupational asthma and occupational respiratory and dermal diseases in relation to diisocyanates; (c) national exposure limits for diisocyanates, if there are any; (d) information about enforcement activities related to this restriction. 10. This restriction shall apply without prejudice to other Union legislation on the protection of safety and health of workers at the workplace. From January 4, 2022, restriction R75 according to REACH, Annex XVII applies.

Full text of H- and EUH-statements:		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Carc. 2	Carcinogenicity, Category 2	
EUH204	Contains isocyanates. May produce an allergic reaction.	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
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 exposure.	
Resp. Sens. 1	Respiratory sensitisation, Category 1	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1A	Skin sensitisation, category 1A	
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.