According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: SDS-27625-4
Issue date: 6/27/2025 Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product form	:	Mixture
Trade name	:	PROSHIELD DLX225 WILKOTAN Component B (Hardener)
Product group	:	Trade product

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

Relevant identified uses

Main use category	:	Industrial use,Professional use
Use of the substance/mixture	:	Hardener for coatings. For professional users/industrial user only.

Uses advised against

Restrictions on use	:	All uses not specified in this section or in section 7.3

1.3. Details of the supplier of the safety data sheet

Supplier
Vilckens Boyaları San. Tic. Ltd.
Postane Mahallesi Esentepe Caddesi
Manastır Yolu No:21
34940 Tuzla / İstanbul
Türkiye
T 0212 356 93 56, F 0212 356 95 00

1.4. Emergency telephone number

No additional information available

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
Acute toxicity (inhalation:vapour) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335

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

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Harmful if inhaled. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07

Signal word (CLP)	:	Warning
Contains	:	Hexamethylene diisocyanate, oligomers; Xylene; Hexamethylene-di-isocyanate
Hazard statements (CLP)	:	H226 - Flammable liquid and vapour. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction.

		H332 - Harmful if inhaled. H335 - May cause respiratory irritation.
Precautionary statements (CLP)	:	P210 - Keep away from heat, hot surfaces, open flames, other ignition sources, sparks. – No smoking. P280 - Wear protective gloves, protective clothing/eye protection/face protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P370+P378 - In case of fire: Use ABC-powder for extinction. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P403+P235 - Store in a well-ventilated place. Keep cool. P501 - Dispose of contents/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

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

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 substance(s) are 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 at a concentration equal to or greater than 0,1 %

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Comments : Chemical description: Miscellaneous products

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hexamethylene diisocyanate, oligomers	CAS-No.: 28182-81-2 EC-No.: 931-274-8	50 – 75	Acute Tox. 4 (Inhalation), H332 (ATE=11 mg/l/4h) Skin Sens. 1, H317 STOT SE 3, H335
N-butyl acetate	CAS-No.: 123-86-4 EC-No.: 204-658-1 EC Index-No.: 607-025-00-1	10 – 25	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
Xylene (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9	10 – 25	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315
2-methoxy-1-methylethyl acetate	CAS-No.: 108-65-6 EC-No.: 203-603-9 EC Index-No.: 607-195-00-7	2.5 – 10	Flam. Liq. 3, H226
Hexamethylene-di-isocyanate (Note 2)	CAS-No.: 822-06-0 EC-No.: 212-485-8 EC Index-No.: 615-011-00-1	< 1	Acute Tox. 3 (Inhalation), H331 (ATE=3 mg/l/4h) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335

Note 2: The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

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 : In all cases of doubt, or when symptoms persist, seek medical attention. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : Harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

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

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Contact with combustible material may cause fire. Flammable liquid and vapour.

Explosion hazard : Risk of explosion if heated under confinement.

Hazardous decomposition products in case of fire : On heating or during combustion : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Keep away from combustible materials. Keep container closed when not in use. Approach from upwind.

Firefighting instructions : Exercise caution when fighting any chemical fire. Keep upwind. Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so. Contain the extinguishing fluids by bunding.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Other information : Do not allow run-off from fire fighting to enter drains or water courses. Notify authorities if product enters sewers or public waters. High temperature decomposition products are harmful by inhalation. Inhalation of vapour can cause breathing difficulties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Keep public away from danger area.

For non-emergency personnel

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures	:	Ventilate spillage area. Do not touch or walk on the spilled product. Notify fire brigade and environmental authorities. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

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".
Emergency procedures	:	Evacuate unnecessary personnel. Equip cleanup crew with proper protection. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Do not touch or walk on the spilled product.
Methods for cleaning up	:	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify authorities if product enters sewers or public waters.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling	:	Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
Hygiene measures	:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Keep only in the original container in a cool well ventilated place. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Incompatible products	:	Strong acids. Strong bases. Strong oxidizing agents.
Incompatible materials	:	Extremely high or low temperatures.
Maximum storage period	:	6 months
Storage temperature	:	5 – 30 °C
Heat and ignition sources	:	Keep away from heat and direct sunlight. Keep away from sources of ignition.
Information on mixed storage	:	Keep away from food, drink and animal feeding stuffs.
Storage area	:	Store, if possible, in a cool, well ventilated place away from incompatible materials.

Germany

Storage class (LGK, TRGS 510)	:	LGK 3 - Flammable liquids
Joint storage table	:	

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for	:	LGK 1, LGK 2A, LGK 4.1A, LGK 4.1B, LGK 4.2, LGK 4.3, LGK 5.1A, LGK 5.1C, LGK 5.2, LGK 6.1B, LGK 6.2, LGK 7

Joint storage with restrictions permitted for : LGK 5.1B, LGK 6.1D, LGK 11, LGK 10-13
Joint storage permitted for : LGK 2B, LGK 3, LGK 6.1A, LGK 6.1C, LGK 8A, LGK 8B, LGK 10, LGK 12, LGK 13

7.3. Specific end use(s)

See Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

National occupational exposure and biological limit values

N-butyl acetate (123-86-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Butyl acetate
IOEL TWA	241 mg/m³
	50 ppm
IOEL STEL	723 mg/m³
	150 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831

DNEL and PNEC

Hexamethylene diisocyanate, oligomers (28182-81-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m³
Long-term - local effects, inhalation	0.5 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.127 mg/l
PNEC aqua (marine water)	0.0127 mg/l
PNEC aqua (intermittent, freshwater)	1.27 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	266701 mg/kg dwt
PNEC sediment (marine water)	26670 mg/kg dwt
PNEC (Soil)	
PNEC soil	53183 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	88 mg/l

N-butyl acetate (123-86-4)	
PNEC (Water)	
PNEC aqua (freshwater)	0.18 mg/l
PNEC aqua (marine water)	0.018 mg/l
PNEC aqua (intermittent, freshwater)	0.36 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.981 mg/kg dwt
PNEC sediment (marine water)	0.0981 mg/kg dwt

N-butyl acetate (123-86-4)	
PNEC (Soil)	
PNEC soil	0.0903 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	35.6 mg/l

Xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	442 mg/m^3
Acute - local effects, inhalation	442 mg/m^3
Long-term - systemic effects, dermal	212 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	221 mg/m^3
Long-term - local effects, inhalation	221 mg/m^3
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	260 mg/m^3
Acute - local effects, inhalation	260 mg/m^3
Long-term - systemic effects,oral	12.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	65.3 mg/m^3
Long-term - systemic effects, dermal	125 mg/kg bodyweight/day
Long-term - local effects, inhalation	65.3 mg/m^3
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l

2-methoxy-1-methylethyl acetate (108-65-6)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	550 mg/m^3
Long-term - systemic effects, dermal	796 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	275 mg/m^3
DNEL/DMEL (General population)	
Acute - systemic effects, oral	500 mg/kg bodyweight/day
Long-term - systemic effects,oral	36 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	33 mg/m^3
Long-term - systemic effects, dermal	320 mg/kg bodyweight/day
Long-term - local effects, inhalation	33 mg/m^3

2-methoxy-1-methylethyl acetate (108-65-6)	
PNEC (Water)	
PNEC aqua (freshwater)	0.635 mg/l
PNEC aqua (marine water)	0.0635 mg/l
PNEC aqua (intermittent, freshwater)	6.35 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.29 mg/kg dwt
PNEC sediment (marine water)	0.329 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.29 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

Hexamethylene-di-isocyanate (822-06-0)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	0.07 mg/m^3
Long-term - local effects, inhalation	0.035 mg/m^3
PNEC (Water)	
PNEC aqua (freshwater)	0.049 mg/l
PNEC aqua (marine water)	0.0049 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.674 mg/kg dwt
PNEC sediment (marine water)	0.0674 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.523 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	8.42 mg/l

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:
Wear respiratory protection. Wear protective gloves. Face shield. Protective clothing. Use footwear with anti-static or anti-spark features.

Personal protective equipment symbol(s):

Eye and face protection

Eye protection:
Safety glasses. Use splash goggles when eye contact due to splashing is possible

Eye protection			
Type	Field of application	Characteristics	Standard
Mandatory face protection	Face shield		EN 166, EN 167, EN 168, EN ISO 4007

Skin protection

Skin and body protection:
According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn

Skin and body protection	
Type	Standard
Mandatory complete body protection	EN 1149-1, EN 1149-2, EN 1149-3, EN 13034, EN ISO 13982, EN ISO 6529, EN ISO 6530, EN ISO 13688, EN 464
Mandatory foot protection	EN ISO 13287, EN ISO 20345, EN 13832

Hand protection:
Protective gloves. 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. The breakthrough time of the selected gloves must be greater than the intended use period. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Linear low-density polyethylene (LLDPE)	6 (> 480 minutes)	0,062		EN ISO 21420

Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection.

Respiratory protection			
Device	Filter type	Condition	Standard
Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405

Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	According to product specification
Molecular mass	:	116.62 g/mol
Odour	:	According to product specification
Odour threshold	:	Not available
Melting point	:	Not applicable

Freezing point	:	Not available
Boiling point	:	135 °C
Flammability	:	Flammable liquid and vapour.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	29 °C
Auto-ignition temperature	:	315 °C @20°C (ASTM D3466-76)
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	2868.86 mm^2/s @20°C
Viscosity, dynamic	:	3000 cP @20°C
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	844 Pa @20°C
Vapour pressure at 50°C	:	4439.18 Pa (4,44 kPa)
Density	:	1015.7 – 1075.7 kg/m^3 @20°C
Relative density	:	1.016 – 1.076 @20°C
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

Other safety characteristics

VOC content	:	31 %
V.O.C. density at 20 °C	:	324,17 kg/m^3 (324,17 g/L)
Average carbon number	:	6,74

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Increase in temperature: Risk of combustion. Sunlight: Avoid direct impact.

10.5. Incompatible materials

Avoid strong acids, alkalis or strong bases and direct impact oxidising materials.

10.6. Hazardous decomposition products

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity (oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	:	Inhalation:vapour: Harmful if inhaled.

PROSHIELD DLX225 WILKOTAN Component B (Hardener)	
ATE CLP (vapours)	10.611 mg/l/4h

Hexamethylene diisocyanate, oligomers (28182-81-2)	
LD50 oral rat	> 2500 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)

Hexamethylene diisocyanate, oligomers (28182-81-2)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:

Xylene (1330-20-7)	
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male

2-methoxy-1-methylethyl acetate (108-65-6)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Hexamethylene-di-isocyanate (822-06-0)	
LD50 dermal rat	> 7000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	0.124 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 111 - 140

Skin corrosion/irritation : Causes skin irritation.

N-butyl acetate (123-86-4)	
pH	6.2 Temp.: 20 °C Concentration: (≈)5 g/L

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

N-butyl acetate (123-86-4)	
pH	6.2 Temp.: 20 °C Concentration: (≈)5 g/L

Respiratory or skin sensitisation : Respiratory sensitization: Not classified. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : May cause respiratory irritation.

Hexamethylene diisocyanate, oligomers (28182-81-2)	
STOT-single exposure	May cause respiratory irritation.

N-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.

Hexamethylene-di-isocyanate (822-06-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

N-butyl acetate (123-86-4)	
LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)

N-butyl acetate (123-86-4)	
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)

2-methoxy-1-methylethyl acetate (108-65-6)	
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

PROSHIELD DLX225 WILKOTAN Component B (Hardener)	
Viscosity, kinematic	2868.86 mm^2/s @20°C

N-butyl acetate (123-86-4)	
Viscosity, kinematic	0.83 mm^2/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm^2/s)'

11.2. Information on other hazards

No additional information available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Hexamethylene diisocyanate, oligomers (28182-81-2)	
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): other:

N-butyl acetate (123-86-4)	
LC50 - Fish [1]	18 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	44 mg/l Test organisms (species): Daphnia sp.
EC50 72h - Algae [1]	397 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	246 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
LOEC (chronic)	47.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	23.2 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Xylene (1330-20-7)	
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
LOEC (chronic)	3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

2-methoxy-1-methylethyl acetate (108-65-6)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes

2-methoxy-1-methylethyl acetate (108-65-6)	
EC50 - Crustacea [1]	> 500 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	47.5 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'

12.2. Persistence and degradability

PROSHIELD DLX225 WILKOTAN Component B (Hardener)	
Persistence and degradability	Not rapidly degradable

Hexamethylene diisocyanate, oligomers (28182-81-2)	
Persistence and degradability	Not rapidly degradable

N-butyl acetate (123-86-4)	
Persistence and degradability	Not rapidly degradable

Xylene (1330-20-7)	
Persistence and degradability	Not rapidly degradable

2-methoxy-1-methylethyl acetate (108-65-6)	
Persistence and degradability	Not rapidly degradable

Hexamethylene-di-isocyanate (822-06-0)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Completely empty the packaging prior to decontamination. Recycle the material as far as possible. Comply with local regulations for disposal.
Additional information : Flammable vapours may accumulate in the container.
Ecological waste information : Avoid release to the environment.
European List of Waste (LoW, EC 2000/532) : 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances

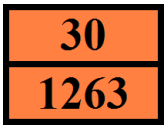
SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1263	UN 1263	UN 1263	UN 1263	UN 1263
14.2. UN proper shipping name				
PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	Paint related material	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport document description				
UN 1263 PAINT RELATED MATERIAL, 3, III, (D/E)	UN 1263 PAINT RELATED MATERIAL, 3, III	UN 1263 Paint related material, 3, III	UN 1263 PAINT RELATED MATERIAL, 3, III	UN 1263 PAINT RELATED MATERIAL, 3, III
14.3. Transport hazard class(es)				
3 	3 	3 	3 	3 
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-E EmS-No. (Spillage): S-E	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Special provisions (ADR)	:	163, 367, 650
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T2
Portable tank and bulk container special provisions (ADR)	:	TP1, TP29
Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Operation (ADR)	:	S2
Hazard identification number (Kemler No.)	:	30
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E

Transport by sea

Special provisions (IMDG)	:	163, 223, 367, 955
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T2
Tank special provisions (IMDG)	:	TP1, TP29
Stowage category (IMDG)	:	A
Properties and observations (IMDG)	:	Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y344
PCA limited quantity max net quantity (IATA)	:	10L
PCA packing instructions (IATA)	:	355
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	366
CAO max net quantity (IATA)	:	220L
Special provisions (IATA)	:	A3, A72, A192
ERG code (IATA)	:	3L

Inland waterway transport

Classification code (ADN)	:	F1
Special provisions (ADN)	:	163, 367, 650
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	F1
Special provisions (RID)	:	163, 367, 650
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Special packing provisions (RID)	:	PP1
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T2
Portable tank and bulk container special provisions (RID)	:	TP1, TP29
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Colis express (express parcels) (RID)	:	CE4
Hazard identification number (RID)	:	30

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: REGULATORY INFORMATION

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
74.	Hexamethylene-di-isocyanate	Diisocyanates, O = C=N-R-N = C=O, with R an aliphatic or aromatic hydrocarbon unit of unspecified length

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

VOC Directive (2004/42)

VOC content : 31 %

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Major Accidents Ordinance (12. BImSchV) : Is not subject to the Major Accidents Ordinance (12. BImSchV)
VOC content : 31 %

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:	
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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value

Abbreviations and acronyms:	
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IOELV	Indicative Occupational Exposure Limit Value
Pow (log)	n-octanol/water partition coefficient
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
WGK	Water Hazard Class

Data sources : Classification according to Regulation (EC) No. 1272/2008 [CLP]. ECHA (European Chemicals Agency). Supplier's safety documents.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 3	H226	On basis of test data
Acute Tox. 4 (Inhalation:vapour)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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