

Hranitherm 350 PUR

Issue date: 2/10/2023

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Revision date: 9/25/2024

Supersedes version of: 7/2/2023

Version: 3.0

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

1.1. Product identifier

Product form : Mixture
Product name : Hranitherm 350 PUR
UFI : 97V2-P0NU-J00K-3N05

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 : Hot melt adhesive

1.3. Details of the supplier of the safety data sheet

Distributor

Hranipex Czech Republic k.s.
J. Rýznerové 97, Komorovice
CZ 396 01 Humpolec
Czech Republic
T +420 565 501 211

cz-hranipex@hranipex.com, www.hranipex.cz

E-mail address of competent person responsible for the SDS :

sds@regartis.com

Supplier

Hranipex Ltd.
Unit 2 Radial Park, Birmingham Business Park
Birmingham, B37 7YN
United Kingdom
T +44 121 767 9180, F 0121 782 6250

uk-hranipex@hranipex.com, www.hranipex.co.uk

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	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]

Respiratory sensitisation, Category 1 H334
Skin sensitisation, Category 1 H317
Carcinogenicity, Category 2 H351

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

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Adverse physicochemical, human health and environmental effects

Suspected of causing cancer. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

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

Hazard pictograms (CLP)	:	
		GHS08
Signal word (CLP)	:	Danger
Contains	:	4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline; 4,4'-Methylenediphenyl diisocyanate, oligomers; 4-isocyanatosulphonyltoluene; tosyl isocyanate
Hazard statements (CLP)	:	H317 - May cause an allergic skin reaction. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 - Suspected of causing cancer.
Precautionary statements (CLP)	:	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P261 - Avoid breathing dust, mist. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342+P311 - If experiencing respiratory symptoms: Call doctor.
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 : 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.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, 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

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-Methylenediphenyl diisocyanate, oligomers	CAS-No.: 25686-28-6 EC-No.: 500-040-3 REACH-no: 01-2119457013-49	2.4 – 4	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline	CAS-No.: 10081-67-1 EC-No.: 233-215-5 REACH-no: 01-2119967418-24	1 – 2.4	Skin Sens. 1, H317 Aquatic Chronic 4, H413

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4-isocyanatosulphonyltoluene; tosyl isocyanate	CAS-No.: 4083-64-1 EC-No.: 223-810-8 EC Index-No.: 615-012-00-7 REACH-no: 01-2119980050-47	0.1 – 0.5	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 EUH014

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
4,4'-Methylenediphenyl diisocyanate, oligomers	CAS-No.: 25686-28-6 EC-No.: 500-040-3 REACH-no: 01-2119457013-49	(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
4-isocyanatosulphonyltoluene; tosyl isocyanate	CAS-No.: 4083-64-1 EC-No.: 223-810-8 EC Index-No.: 615-012-00-7 REACH-no: 01-2119980050-47	(5 ≤ C ≤ 100) Skin Irrit. 2; H315 (5 ≤ C ≤ 100) STOT SE 3; H335 (5 ≤ C ≤ 100) Eye Irrit. 2; H319

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 case of doubt or persistent symptoms, consult always a physician. If possible, show the doctor this safety data sheet. Failing this, show the doctor the packaging or label.
First-aid measures after inhalation	: Move the affected person away from the contaminated area and into the fresh air. If breathing is difficult, give oxygen. Seek medical advice.
First-aid measures after skin contact	: In case the melted product gets on skin, cool immediately with cold water. . Do not pull solidified product away from the skin. Wash skin with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Cool rapidly with cold water after contact with molten product. Consult an eye specialist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Seek medical attention immediately.

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

Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Cough.
Symptoms/effects after skin contact	: 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	: Carbon dioxide. Water spray. For large fire: Foam. Water spray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Explosion hazard	: Risk of bursting.
Reactivity in case of fire	: On heating : release of (highly) toxic gases/vapours. Fire will produce dense black smoke.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO2). Nitrogen oxides. Isocyanates. Hydrogen cyanide. Do not breathe fumes from fires or vapours from decomposition.

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5.3. Advice for firefighters

- Firefighting instructions : Move containers away from the fire area if this can be done without risk.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Normal equipment for firefighters i.e. fire kit (EN 469), gloves (EN 659) and boots (HO specification A29 and A30) in combination with breathing apparatus (EN 137).
- Other information : Do not allow run-off from fire fighting to enter drains or water courses. Dispose of rinse water in accordance with local and national regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid any direct contact with the product. Do not touch or walk on the spilled product. Stop leak if safe to do so.

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".

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses. In case of contamination of soil or water bodies notify the competent authorities.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : If melted: allow liquid to solidify before taking it up. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Dispose of contaminated materials in accordance with current regulations. Wash off with plenty of water.

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 : Obtain special instructions before use. Good ventilation of the workplace required. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Keep away from : Incompatible products. Keep away from food, drink and animal feeding stuffs. 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.
- Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands and face immediately after handling this product, and once again before leaving the workplace. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, cool, well-ventilated area. Keep only in the original container. Keep container tightly closed to prevent moisture pick-up. Keep in properly labelled containers. . Store away from direct sunlight or other heat sources. Stow away from foodstuffs. Prevent unauthorised access. Store locked up.

7.3. Specific end use(s)

Polyurethane. Hot melt adhesives.

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SECTION 8: Exposure controls/personal protection**8.1. Control parameters****National occupational exposure and biological limit values****4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)****United Kingdom - Occupational Exposure Limits**

Local name	Isocyanates, all (as -NCO)
WEL TWA (OEL TWA)	0.02 mg/m ³
WEL STEL (OEL STEL)	0.07 mg/m ³

DNEL and PNEC**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline (10081-67-1)****DNEL/DMEL (Workers)**

Acute - local effects, dermal	0.82 mg/cm ²
Acute - local effects, inhalation	280 mg/m ³
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.05 mg/m ³

DNEL/DMEL (General population)

Acute - local effects, dermal	0.41 mg/cm ²
Acute - local effects, inhalation	69.56 mg/m ³
Long-term - systemic effects, oral	0.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.74 mg/m ³
Long-term - systemic effects, dermal	0.5 mg/kg bodyweight/day

4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)**DNEL/DMEL (Workers)**

Acute - local effects, inhalation	0.1 mg/m ³
Long-term - local effects, inhalation	0.05 mg/m ³

DNEL/DMEL (General population)

Acute - local effects, inhalation	0.05 mg/m ³
Long-term - local effects, inhalation	0.025 mg/m ³

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
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PNEC (STP)

PNEC sewage treatment plant	1 mg/l
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4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)**DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	0.92 mg/kg bodyweight/day
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4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)	
Long-term - systemic effects, inhalation	3.24 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.46 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.8 mg/m³
Long-term - systemic effects, dermal	0.46 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	30 µg/L
PNEC aqua (marine water)	3 µg/L
PNEC aqua (intermittent, freshwater)	300 µg/L
PNEC (Sediment)	
PNEC sediment (freshwater)	0.172 mg/kg dwt
PNEC sediment (marine water)	0.0172 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.0168 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	400 µg/L

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Provide adequate general and local exhaust ventilation. Apply technical measures to comply with the occupational exposure limits.

Personal protection equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Eye and face protection

Eye protection:
Safety glasses. EN166. tightly fitting safety goggles

Skin protection

Skin and body protection:
Wear suitable coveralls to prevent exposure to the skin. Safety shoes

Hand protection:
Chemical resistant gloves (according to European standard ISO 374-1 or equivalent). Butyl rubber. Nitrile rubber. Chloroprene rubber

Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust. Wear a half-mask respirator, selected in accordance with EN529

Thermal hazards

Thermal hazard protection:
Use insulated gloves when handling this material hot.

Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment. Comply with applicable regulations.

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Other information:

Do not eat, drink or smoke during use. Immediately remove contaminated clothing or footwear. Always wash hands after handling 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Natural colour.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 230 °C
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: 58000 mPa·s @ 140°C
Solubility	: Reacts with water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 0.00062 Pa
Vapour pressure at 50°C	: Not available
Density	: 1.3 g/ml
Relative density	: Not applicable
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Exothermic reaction on contact with : alcohols. Amines. Reacts on contact with water releasing carbon dioxide (CO₂). Never introduce water or any aqueous agent into tanks or containers. Closed containers may generate internal gas pressure. pressure rise and possible bursting of container.

10.4. Conditions to avoid

High temperature. humidity.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

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

4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline (10081-67-1)

LD50 oral rat	> 2000 ml/kg
LD50 dermal rat	> 2000 mg/kg

4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 9400 mg/kg bodyweight
LC50 Inhalation - Rat	1.5 mg/l/4h

4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)

LD50 oral rat	> 2000 mg/kg
LD50 oral	2330 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)

4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)

STOT-single exposure	May cause respiratory irritation.
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4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
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4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
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Viscosity, kinematic	Not applicable
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11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: 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 %
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SECTION 12: Ecological information

12.1. Toxicity

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)

4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline (10081-67-1)

LC50 - Fish [1]	100 mg/l
EC50 - Crustacea [1]	100 mg/l
EC50 72h - Algae [1]	69 mg/l
NOEC chronic crustacea	38 µg/L

4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)

LC50 - Fish [1]	1 g/l
EC50 - Crustacea [1]	129.7 mg/l
EC50 72h - Algae [1]	1640 mg/l
NOEC chronic crustacea	10 mg/l

4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)

LC50 - Fish [1]	> 45 mg/l OECD 203
EC50 - Crustacea [1]	> 100 mg/l OECD 202
EC50 72h - Algae [1]	25 mg/l

12.2. Persistence and degradability

4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline (10081-67-1)

Persistence and degradability	Not readily biodegradable.
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4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)

Persistence and degradability	Not readily biodegradable.
Biodegradation	0 % 28d (OECD 301F)

4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)

Persistence and degradability	Readily biodegradable.
Biodegradation	83 % 28d

12.3. Bioaccumulative potential

4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline (10081-67-1)

BCF	1245 l/kg
Partition coefficient n-octanol/water (Log Pow)	8.5

4,4'-Methylenediphenyl diisocyanate, oligomers (25686-28-6)

Bioconcentration factor (BCF)	200 OECD 305
Partition coefficient n-octanol/water (Log Kow)	8.56 @ 20°C

4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)

Partition coefficient n-octanol/water (Log Kow)	0.6 OECD 301D (PTSA) @ 30 °C
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12.4. Mobility in soil**Hranitherm 350 PUR**

Ecology - soil

No information available.

12.5. Results of PBT and vPvB assessment**Hranitherm 350 PUR**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: 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 %.

12.7. Other adverse effects

Additional information

: No other effects known

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.

Sewage disposal recommendations

: Do not dispose of waste into sewer.

Product/Packaging disposal recommendations

: Re-use, when possible. Empty containers can be used in energy incinerator or stored in a landfill in accordance with the relevant legislation.

Ecological waste information

: Avoid release to the environment.

HP Code

: HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence
HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.**SECTION 14: Transport information**

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

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14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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
3(b)	4,4'-Methylenediphenyl diisocyanate, oligomers ; 4-isocyanatosulphonyltoluene; tosyl isocyanate

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 (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 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

Explosives Precursors Regulation (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 (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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP)

Hranitherm 350 PUR

Issue date: 2/10/2023 according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Revision date: 9/25/2024 Supersedes version of: 7/2/2023 Version: 3.0

United Kingdom

British National Regulations : Regulation (EC) No 1013/2006 of the European Parliament and of the Council on shipments of waste, in the valid wording.
Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives, in the valid wording.
UK Waste Regulations.
UK REACH.
GB CLP.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes		
Section	Changed item	Comments
	Supersedes	Modified
	Revision date	Modified
1.1	UFI on SDS 1.1	Modified
1.1	Name	Modified
2.3	Other hazards not contributing to the classification	Modified
3	Composition/information on ingredients	Modified
5.1	Suitable extinguishing media	Modified
5.2	Reactivity in case of fire	Modified
5.3	Protection during firefighting	Modified
6.3	Other information	Removed
6.3	Methods for cleaning up	Modified
9	Vapour pressure	Added
9	Colour	Modified
10.1	Reactivity	Modified

Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
SDS	Safety Data Sheet
DNEL	Derived-No Effect Level
PNEC	Predicted No-Effect Concentration
LC50	Median lethal concentration

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Abbreviations and acronyms:

LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
EC50	Median effective concentration
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA Guidance on the compilation of safety data sheets
ECHA C&L Inventory database. Supplier's safety documents.

Training advice : Provide SDS to employees. Follow general rules on handling chemical substances and/or mixtures. Safety training for chemicals handling.

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Carc. 2	Carcinogenicity, Category 2
EUH014	Reacts violently with water.
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.
H413	May cause long lasting harmful effects to aquatic life.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
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

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Resp. Sens. 1	H334	Calculation method
Skin Sens. 1	H317	Calculation method
Carc. 2	H351	Calculation method

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.