

HARDENER 008 7710

Date 13.7.2010

Previous date: 19.8.2008

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**1.1 Identification of the article**

1.1.1 Commercial Product Name
HARDENER 008 7710

1.1.2 Product code
008 7710

1.2 Use of the Substance/Preparation**1.2.1 Intended use**

Painting work

Description: Isocyanate hardener.

Only for industrial and professional use. The product is not intended for consumer use.

1.3 Identification of the company**1.3.1 Supplier**

Tikkurila Oyj

1.3.2 Contact information:**P.O.Box**

P.O.Box 53

Postcode and post office

FI-01301 VANTAA

FINLAND

Telephone

+358 9 857 71

Telefax

+358 9 8577 6936

1.3.4 Responsible for the Safety Data Sheet:

Tikkurila Oyj, Product Safety, e-mail: productsafety@tikkurila.com

1.4 Emergency telephone number**1.4.1 Telephone number, name and address**

Tikkurila Oyj, Environment and Safety: +358 9 857 71

2. HAZARDS IDENTIFICATION

Flammable.

Irritant; Xi

May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information on hazard labelling in section 15.1.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Hazardous components****3.1.1****CAS number****EINECS****3.1.2****Chemical name of the substance****3.1.3****Concentration****3.1.4****Classification**

64742-95-6

265-199-0

Solvent naphtha, light aromatic

5 - 10 %

Xn, N; R10-37-65-66-67-51/53

108-65-6

203-603-9

2-Methoxy-1-methylethyl acetate

1 - 5 %

Xi; R10-36

822-06-0

212-485-8

Hexamethylene diisocyanate

< 0,5 %

T; R23-36/37/38-42/43

28182-81-2

-

Isocyanate resin

70 - 90 %

Xi; R43

123-86-4

204-658-1

Butyl acetate

5 - 10 %

-; R10-66-67

3.1.7 Further information

Solvent naphtha, light aromatic contains benzene less than 0,1 w-%.

4. FIRST AID MEASURES**4.1 Additional advice**

In all cases of doubt, or when symptoms persist, seek medical attention.

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- 4.2 Inhalation**
Remove to fresh air, keep patient warm and at rest.
- 4.3 Skin contact**
Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleanser.
- 4.4 Eye contact**
Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
- 4.5 Ingestion**
If accidentally swallowed obtain immediate medical attention. Keep at rest. DO NOT induce vomiting.

5. FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media**
Use foam, CO₂, powder or water spray.
- 5.2 Extinguishing media which must not be used for safety reasons**
Waterjet
- 5.3 Specific hazards**
Fire will produce dense black smoke, which contains decomposition products. Avoid breathing the smoke.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions**
Avoid skin and eye contact with the product.
Avoid breathing vapours. Exclude sources of ignition.
- 6.2 Environmental precautions**
Do not allow to enter drains or water courses.
- 6.3 Methods for cleaning up**
Contain and collect spillage with non-combustible absorbent materials, e.g. sand or vermiculite and place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts) / ethanol or isopropanol (50 parts) / concentrated ammonia (5 parts). A non-flammable alternative is sodium carbonate (5 parts) / water (95 parts). Add the same decontaminant to the remnants and let stand for several days in non-sealed container until no further reaction. Once this stage is reached, close container and dispose of according to local regulations.

7. HANDLING AND STORAGE

- 7.1 Handling**
Avoid contact with skin and eyes.
Vapours are heavier than air and may form explosive mixtures with air. Good ventilation must be provided. Keep away from sources of ignition. Take precautionary measures against static discharges.
- 7.2 Storage**
Keep containers tightly closed. Store in a cool, dry, well ventilated place away from sources of heat and direct sunlight. Precautions should be taken to minimize exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result in pressurisation. Care should be taken when re-opening partly used containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Exposure Limit Values**
- 8.1.1 Occupational exposure limit values**
- | | |
|----------------------------|-----------------|
| Butyl acetate | 150 ppm (8 h) |
| Hexamethylene diisocyanate | 0,005 ppm (8 h) |
- 8.1.2 Information on limit values**
TLV-TWA = Threshold Limit Values - Time-weighted average / ACGIH 2009

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8.2 Exposure controls**8.2.1 Occupational exposure controls**

Provide adequate ventilation. When handling paints containing isocyanates all precautions required for solvent-containing paints must be followed. Vapour and spray mist in particular should not be inhaled. Allergics and asthmatics as well as people prone to respiratory ailments should not work with isocyanate containing paints. Comply with the health and safety at work laws.

8.2.1.1 Respiratory protection

If ventilation is insufficient, use appropriate certified respirators with gas, vapour and dust filter AP. During spray-application or during continuous and long-term work, an air-fed protective respiratory equipment must be worn even when good ventilation is provided.

8.2.1.2 Hand protection

Always wear approved protective gloves (e.g. nitrile rubber) against chemicals. Barrier creams may also help to protect the exposed areas of the skin.

8.2.1.3 Eye protection

Safety eyewear must be used, specially during spray-application.

8.2.1.4 Skin and body protection

Use suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 General Information (appearance, odour)**

Viscous liquid, strong odour

9.2 Important Health Safety and Environmental Information

9.2.2 Boiling point/range 124 - 128 °C *)

9.2.3 Flash point + 23 °C *)

9.2.5 Explosive properties

9.2.5.1 Lower explosion limit 3 vol-% *)

9.2.5.2 Upper explosion limit 10,4 vol-% *)

9.2.7 Vapour pressure 1,3 kPa (20 °C) *)

9.2.8 Relative density 1,10

9.2.9 Solubility

9.2.9.1 Water solubility Insoluble

9.3 Other data

Evaporation rate (BuAc=1) :1 *)

*) = Butyl acetate

10. STABILITY AND REACTIVITY**10.1 Conditions to avoid**

Solvent vapours may form explosive mixtures with air.

10.2 Materials to avoid

Keep away from oxidizing agents, strongly alkaline and strongly acid materials, amines and alcohols. Uncontrolled exothermic reactions occur with amines and alcohols. Reacts with water resulting in evolution of carbon dioxide (CO₂). In closed containers, the pressure build up could result in bursting of the container.

10.3 Hazardous decomposition products

Fire will produce dense black smoke. Hazardous decomposition products, such as smoke, carbon monoxide, oxides of nitrogen, hydrogen cyanide and isocyanate compounds, may be produced in a fire or when exposed to high temperatures -e.g. when welding or flame cutting a painted surface. Exposure to decomposition products may cause a health hazard.

11. TOXICOLOGICAL INFORMATION**11.1 Acute toxicity**

See section 11.5

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- 11.2 Primary irritation**
See section 11.5.
- 11.3 Sensitisation**
Exposure by inhalation and skin contact may cause sensitization. Based on the properties of the isocyanate components and considering toxicological data on similar preparations, this preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.
- 11.5 Human experience**
11.5.1 Inhalation: Solvent vapours and spray mist harmful if inhaled. Long term exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache and dizziness.
11.5.2 Skin contact: Repeated or prolonged contact with the preparation may cause removal of the natural fat from the skin resulting in contact dermatitis. Splashes in the eyes may cause irritation.
11.5.3 Other effects: Harmful if taken internally.

12. ECOLOGICAL INFORMATION

- 12.1 Ecotoxicity**
- 12.1.1 Aquatic toxicity**
Solvent naphtha, light aromatic: LC50 = 1-10 mg/l, fish, crustacean, algae (estimate); toxic
- 12.3 Persistence and degradability**
- 12.3.1 Biodegradation**
Solvent naphtha, light aromatic: 78 %, 28 d; readily biodegradable
- 12.4 Bioaccumulative potential**
Solvent naphtha, light aromatic: octanol/water partition coefficient log Pow = 3,7-4,5 (estimate)
- 12.6 Other adverse effects**
There is no data available on the preparation itself. The product should not be allowed to enter drains or water courses.

13. DISPOSAL CONSIDERATIONS

- 13.1 Product residues: Gather residues into waste containers. Destroy according to the rules given by local authorities. EWC-code for liquid waste is e.g 08 01 11 (waste paint and varnish containing organic solvents or other dangerous substances).
- 13.2 Packaging waste: Empty cans should be recycled or disposed of in accordance with local regulations.

14. TRANSPORT INFORMATION

- | | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 14.1 UN No | 1263 |
| 14.2 Packing group | III |
| 14.3 Land transport | |
| 14.3.1 ADR/RID Class | 3 |
| 14.3.3 Description of the goods | paint related material |
| 14.3.4 Further Information | Drums/vessels < 450 litres: not subject to ADR because of high viscosity |
| 14.4 Sea transport | |
| 14.4.1 IMDG Class | 3 |
| 14.4.2 Proper shipping name | paint related material |
| 14.4.3 Further Information | EmS: F,E-S,E
Drums/vessels < 30 litres: Transport in accordance with paragraph 2.3.2.5 of the IMDG Code. |

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14.5	Air transport	
14.5.1	ICAO/IATA Class	3
14.5.2	Proper shipping name	paint related material

15. REGULATORY INFORMATION**15.1 Information on the warning label****15.1.1 Letter code of the warning symbol and indications of danger for the preparation**

Xi Irritant

15.1.2 Names of the ingredients given on the warning label

Solvent naphtha, light aromatic

Isocyanate resin

Butyl acetate

15.1.3 R-phrases(s)

R10 Flammable.

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

15.1.4 S-phrases(s)

S23 Do not breathe vapour/spray.

S24 Avoid contact with the skin.

S29 Do not empty into drains.

S36/37 Wear suitable protective clothing and gloves.

S38 In case of insufficient ventilation, wear suitable respiratory equipment.

15.1.5 Special regulations on certain preparations

Contains isocyanates. See information supplied by the manufacturer.

16. OTHER INFORMATION**16.1 Full text of R-phrases referred to under sections 2 and 3**

R10 Flammable.

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R23 Toxic by inhalation.

R36 Irritating to eyes.

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

R37 Irritating to respiratory system.

R42/43 May cause sensitization by inhalation and skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

16.3 Recommended restrictions

Only for industrial and professional use. The product is not intended for consumer use.

16.4 Additional information

The information of this MSDS is based on the present state of our knowledge and on current EC laws. It is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products' properties.

Additional information available from: Tikkurila Oyj, Product Safety, P.O. Box 53, FIN-01301 VANTAA, FINLAND, Telephone +358 9 857 71, Fax +358 9 8577 6936, E-mail: productsafety@tikkurila.com

Signature

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