HARDENER 007 1261

Date 28.1.2009 Previous date: 26.1.2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/ UNDERTAKING

1.1 Identification of the article

1.1.1 Commercial Product Name

HARDENER 007 1261

1.1.2 Product code

007 1261

1.2 Use of the Substance/Preparation

1.2.1 Intended use

Painting work.
Description: Polyurethane hardener

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

1.4 Emergency telephone number

1.4.1 Telephone number, name and address

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

2. HAZARDS IDENTIFICATION

Highly flammable.
Harmful, Xn
Harmful by inhalation. Irritating to eyes and skin. May cause sensitization by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child.
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
-	-	Isoscyanate resin	25 - 75 %	Xn; R42
91-08-7	247-722-4	Toluene diisocyanate (TDI)	< 0,2 %	T+; R26-36/37/38-40-42/43-52/53
108-88-3	203-625-9	Toluene	10 - 25 %	F, Xn; R11-38-48/20-63-65-67
141-78-6	205-500-4	Ethyl acetate	10 - 25 %	F, Xi; R11-36-66-67
123-86-4	204-658-1	n-Butyl acetate	10 - 25 %	-; R10-66-67
110-19-0	203-745-1	Iso-butyl acetate	2,5 - 10 %	F; R11-66
108-65-6	203-603-9	2-Methoxy-1-methylethyl acetate	2,5 - 10 %	Xi; R10-36

4. FIRST AID MEASURES

4.1 Additional advice

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

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 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
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

Toluene	20 ppm (8 h)
Ethyl acetate	400 ppm (8 h)
n-Butyl acetate	150 ppm (8 h)
Iso-butyl acetate	150 ppm (8 h)
Toluene diisocyanate (TDI)	0,005 ppm (8 h)

8.1.2 Information on limit values
TLV-TWA = Threshold Limit Values - Time-weighted average / ACGIH 2008

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**	+ 77 °C *)
9.2.3	**Flash point**	- 3 °C
9.2.5	**Explosive properties**	
9.2.5.1	**Lower explosion limit**	2,2 vol-% *)
9.2.5.2	**Upper explosion limit**	11 vol-% *)
9.2.7	**Vapour pressure**	9,7 kPa (20 °C) *)
9.2.8	**Relative density**	0,99
9.2.9	**Solubility**	
9.2.9.1	**Water solubility**	Insoluble
9.2.11	**Viscosity**	flow time more than 30 sec / ISO 3 mm cup

9.3 Other data
Evaporation rate (BuAc=1) : 4,2 *)
*) = Ethyl 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 (CO_2). 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

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. The product contains toluene. Possible risk of harm to the unborn child.
Harmful: danger of serious damage to health by prolonged exposure through inhalation.

12. ECOLOGICAL INFORMATION

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**	II
14.3	**Land transport**	
14.3.1	**ADR/RID Class**	3
14.3.3	**Description of the goods**	paint related material
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
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

F	Highly flammable
Xn	Harmful

15.1.2 Names of the ingredients given on the warning label

Isoscyanate resin
Toluene diisocyanate (TDI)
Toluene
Ethyl acetate

15.1.3 R-phrase(s)

R11	Highly flammable.
R20	Harmful by inhalation.
R36/38	Irritating to eyes and skin.
R42	May cause sensitization by inhalation.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63	Possible risk of harm to the unborn child.

15.1.4 S-phrase(s)

S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S29	Do not empty into drains.
S33	Take precautionary measures against static discharges.
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

R42/43	May cause sensitization by inhalation and skin contact.
R11	Highly flammable.
R20	Harmful by inhalation.
R36/38	Irritating to eyes and skin.
R42	May cause sensitization by inhalation.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63	Possible risk of harm to the unborn child.
R10	Flammable.
R26	Very toxic by inhalation.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R52/53	Harmful 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.

16.4 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 Oy, 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 d2/ars