

Material Safety Data Sheet according 91/155/EEC

Product Name : **FLEXO PRIMER LE.**

Date: 02.01.06 Revision date: 02.12.05 page: 1 of 6

1. IDENTIFICATION OF THE PREPARATION AND COMPANY.

Product Name and Code : **FLEXO PRIMER LE.** 0520-15002

Product Use: A light stable single component polyurethane primer for smooth plastic substrates.

Name of the company:

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2. COMPOSITION AND INFORMATION ON INGREDIENTS.

Substances presenting a health hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

CAS-No.	Names	Conc.	Symb.	R phrases
1330-20-7	xylene, mixture of isomers	25 - 50	Xn	10-20/21-38
100-41-4	ethylbenzene	10 - 25	Xn, F	11-20
108-67-8	1,3,5 trimethylbenzene, mesitylene	< 0.5	Xi, N	10-37-51/53
4083-64-1	4 isocyanatosulphonyltoluene	0.5 – 2	Xn	14-36/37/38-42
123-86-4	n-butyl acetate	2 - 5		10-66-67
108-65-6	2 methoxy-1-methylethyl acetate	10 – 25	Xi	10-36
95-63-6	1,2,4-trimethylbenzene	< 0.5	Xn, N	10-20-36/37/38-51/53
28182-81-2	aliphatic polyisocyanate	25 - 50	Xi	43
77-58-7	dibutyltindilaurates	< 0.5	Xn, N	22-36/38-48/22-50/53

(See full text of R phrases under chapter 16)

3. HAZARDS IDENTIFICATION OF THE PREPARATION.

Xn	Harmful
10	Flammable.
20/21	Harmful by inhalation and in contact with skin.
36/38	Irritating to eyes and skin.
43	May cause sensitization by skin contact.
52/53	Harmful to aquatic organisms, may cause long term adverse effects in aquatic environment.

4. FIRST AID MEASURES.

General :

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation :

Remove to fresh air, keep patient warm and at rest, if breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

Eye contact :

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

4. FIRST AID MEASURES. Continued;

Skin contact :

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion :

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

5. FIRE-FIGHTING MEASURES.

Extinguishing media : recommended : alcohol resistant foam, CO₂, powders, water spray

Not to be used : water jet.

Recommendations : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water ways.

6. ACCIDENTAL RELEASE MEASURES.

Exclude sources of ignition and ventilate the area. Avoid breathing vapors. Refer to protective measures listed in sections 7 and 8. Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminate. One possible (flammable) decontaminate comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts), concentrated (d : 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts), water (95 parts). Add the same decontaminate to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to local regulations (see section 13). Do not allow to enter drains or water ways.

If the product contaminates lakes, rivers or sewers, inform appropriate authorities in accordance with local regulations.

7. HANDLING AND STORAGE.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used

Handling.

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Additionally, the product should only be used in areas from which all bare electric lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Preparation may charge electro-statically: always use grounding leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the non-conducting type. Keep container tightly closed. Precautions should be taken to minimize exposure to atmospheric humidity or water : CO₂ will be formed which in closed containers can result in pressurization. Care should be taken when re-opening partly used containers. Isolate from sources of heat, sparks and open flame. No sparking tools should be used.

Avoid skin and eye contact. Avoid inhalation of vapor and spray mist. Smoking, eating and drinking should be prohibited in application area. For personal protection see Section 8. Never use pressure to empty : container is not a pressure vessel. Always keep product material in the original container. Comply with the health and safety at work laws.

Storage.

Observe label precautions. Store between 5 and 30 °C in a dry, well ventilated place away from sources

7. HANDLING AND STORAGE. Continued;

of heat and direct sunlight. Keep away from sources of ignition. Keep away from oxidizing agents, from strongly alkaline and strongly acid materials as well as of amines, alcohol and water. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Engineering Measures.

Provide adequate ventilation. This should be achieved by the use of local exhaust ventilation and good general circulation. Air fed protective respiratory equipment must be worn by spray operator even when good ventilation and good general air circulation are not sufficient to maintain concentrations of particulate and solvent vapor below the OEL, suitable respiratory protection must be worn.

Exposure Limits. Occupational exposure limit for :

CAS-No.	Names	STEL	LTEL
1330-20-7	xylene, mixture of isomers	150	100 PPM
100-41-4	ethylbenzene	125	100 PPM
123-86-4	n-butyl acetate	200	150 PPM
108-67-8	1,3,5 trimethylbenzene, mesitylene		20 PPM
77-58-7	dibutyltindilaurates		0.1 mg/m ²
108-65-6	2 methoxy-1-methylethyl acetate	100	50 PPM
28182-81-2	aliphatic polyisocyanate		0.5 mg/m ²

Personal Protection.

Respiratory protection:

By spraying: air fed respirator.

By other operations than spraying : in well ventilated areas, air fed respirators could be replaced by a combination of charcoal filter and particulate filter mask.

Hand protection:

For prolonged or repeated contact, use : Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eye protection:

Use safety eyewear designed to protect against splash of liquids.

Skin protection. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber. All parts of the body should be washed after contact.

9. PHYSICAL AND CHEMICAL PROPERTIES.

Physical state :	viscous.	Method
Flash point :	25 °C	DIN 53213
Viscosity :	@ 23 °C = 12 s 4 mm	DIN 53211
Specific gravity :	0.96	
Vapor density :	heavier than air	
Lower explosion limit:	1.0	
Solubility in water :	not soluble	
Volatile Organic Compounds: VOC =	661 grams per liter. (g/l)	

10. STABILITY AND REACTIVITY.

Stable under recommended storage and handling conditions. (See section 7) When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen as well as from hydrogen cyanide, amines, alcohol and water.

Keep away from oxidizing agents, strongly alkaline and strongly acid materials. Exothermic reactions occur with amines and alcohol. Preparation reacts slowly with water resulting in evolution of CO₂ which produces a risk of bursting in closed containers.

11. TOXICOLOGICAL INFORMATION.

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, wheezing 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. Exposure to component solvents vapors 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; dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

12. ECOLOGICAL INFORMATION.

There are no data available on the preparation itself. The product should not be allowed to enter drains or water ways.

13. DISPOSAL CONSIDERATIONS.

Do not allow into drains or water ways.

EAK-NR. Disposal Name:

080111 Waste paint and varnish containing organic solvents or other dangerous substances.

Empty containers are to be given for disposal . Partially emptied containers are subject to special disposal regulations. In all cases and prior to disposal, check with your local waste regulatory agency.

14. TRANSPORT INFORMATION.

Transport only in accordance with ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

ADR/RID: Class: 3

item: 31c

Transport document name: 1263 Paint related material

IMDG: Class: 3 UN NR. : 1263

EMS : 3-05

Proper shipping name : PAINT RELATED MATERIAL

Packaging group : III

Marine pollutant : N/A.

14. TRANSPORT INFORMATION. Continued;

ICAO/IATA: Class: 3 UN NR. : 1263

Proper shipping name : Paint related material

Packaging group : III

15. REGULATORY INFORMATION.

The requirements of the Classification Packaging and Labeling of Dangerous Substances Regulations.

The product is labeled as follows :

Danger classification : Xn harmful

Contains: Xylene, mixture of isomers
Aliphatic polyisocyanate

R phrases:

- 10 Flammable.
- 20/21 Harmful by inhalation and in contact with skin.
- 36/38 Irritating to eyes and skin.
- 43 May cause sensitization by skin contact.
- 52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment.

S phrases:

- 2 Keep out of the reach of children.
- 24 Avoid contact with skin.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29 Do not empty into drains.
- 36/37 Wear suitable protective clothing and gloves.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well ventilated areas.

other phrases:

- 91 Contains isocyanates. See information supplied by the manufacturer.
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16. OTHER INFORMATION.

Full text of R phrases appearing in section 2 :

- 10 Flammable.
- 11 Highly flammable.
- 20/21 Harmful by inhalation and in contact with skin.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 65 Harmful: May cause lung damage if swallowed.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapors may cause drowsiness and dizziness.

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16. OTHER INFORMATION. Continued;

The information contained in this Material Safety Data Sheet (MSDS) is based on the present state of knowledge and on current EEC and national law.

This MSDS is meant as a description of the safety requirements of the product and is not to be considered as a guarantee of the products' properties. The data in this MSDS does not establish a legally valid basis or foundation for any type of damage or liability claim.

As the users technical skill and project working conditions are beyond our knowledge and control, the product is not to be used for any other purposes than those specified under section 1, "Product Use", of this MSDS, without first obtaining written instructions and acknowledgment from the manufacturer.

The user is responsible for ensuring that the requirements and obligations of all relevant legislation and laws are complied with.

END