



COLOMIX 2K Hardener 2+1

Revision No.:2
Revision Date:19/04/10**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Product name: COLOMIX 2K Hardener 2+1
Item code: 438568
Product general name: Hardener based on isocyanate resin in organic solvents.
Producer/supplier: HELIOS Tovarna barv, lakov in umetnih smol Količevo, d.o.o.
tel: +386 1 3629 100, fax +386 1 3629 167 <http://www.color.si>
Emergency phone : In case of health hazard, consult a private or a doctor on duty. For additional information please call phone number +386 (1) 3629 265 (INDOK dept.).

2. HAZARDS IDENTIFICATION

Hazards designation: Flammable.
Irritating to respiratory system and skin. Vapours may cause drowsiness and dizziness. May cause sensitisation by skin contact. Harmful by inhalation and in contact with skin.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description: Binders prepared in organic solvents.

It contains the following health and environment hazardous ingredients:

| Chemical name: | Conc.(%) | CAS. No.: | EC No.: | Index No.: | Symbol: | R- phrases: |
|---|----------|------------|-----------|--------------|---------|----------------------------|
| aliphatic polyisocyanate | 25-50 | 28182-81-2 | 500-060-2 | - | Xi | R43 |
| Xylene | 25-50 | 1330-20-7 | 215-535-7 | 601-022-00-9 | Xn | R10 R20/21 R38 |
| Solvent naphtha (petroleum), light aromatic | 10-25 | 64742-95-6 | 265-199-0 | 649-356-00-4 | N Xn | R66 R67 R10 R51/53 R37 R65 |
| n-butyl acetate | 10-25 | 123-86-4 | 204-658-1 | 607-025-00-1 | | R10 R66 R67 |

4. FIRST AID MEASURES

Symptoms caused by excessive exposure: Dizziness, nausea, vomiting, difficult breathing, irritation of skin or eyes. In case of these symptoms, seek medical help and show this data sheet.

In case of excessive inhalation: Breathe fresh air. Rest. Do not eat or drink until the symptoms disappear.

In case of ingestion: Do not eat. Drink only water. Do not induce vomiting.

In case of contact with skin and clothes: Remove contaminated clothes. Wash skin with water and soap. Do not use organic solvents or thinners.

In case of contact with eyes: Rinse with plenty of water for at least 15 minutes and seek medical help.

5. FIRE-FIGHTING MEASURES

Preventive measures: Remove all possible sources of fire, e.g. open flame, lit cigarette, sparks from tools and equipment. Always keep containers closed.

Fire extinguishers: Foam, powder, CO₂, to a limit also water spray.

Fire extinguishing measures: Put out fire in the direction of the wind. Spray non-burning containers with water, prevent product leakage and move containers to a safe space. In case of fire, health damaging gases and soot may appear. The use of a respiratory mask with filter A is recommended.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid possible sources of ignition (fire, lit cigarette, sparks, etc.). Protect respiratory system against inhalation of vapours. Provide good ventilation.

Environmental precautions: Do not allow spilling into water, watercourses, cellars, caves or drains and the accumulation of vapours in closed rooms.

Methods of cleaning up: Absorb and mix the spilled product with soil, sand or any other absorbent material for liquids. Dispose the mixture to a deposit site for special or dangerous waste or burn in the incinerator.

7. HANDLING AND STORAGE

Handling: During handling the product ventilate the area.
Follow valid regulations on the emission of dangerous substances into the environment (par. 12) and explosion points (par. 9).
Follow safety at work regulations.
Keep containers tightly closed. Store in places out of reach of unskilled people. Do not eat, drink or smoke while using the product.

Storage: Store in accordance with the regulations on the storage of flammable and other dangerous substances.
Do not store with food or fodder. Keep in a tightly closed container in dry and ventilated storage, follow the instructions on the label.
Packaging should be marked with an original product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection: Adjust safety protection to the product application technology. Use materials resistant to organic solvents (rubber, special plastic). Use only spark-free tools.

Respiratory protection: Provide such ventilation at the site of use so that the concentration of solvent vapours present in product will not exceed the threshold limit value (TLV).

The prescribed of threshold limit value (TLV) hazardous substances in the work place atmosphere according to the Regulations on the safety of employees and protection against chemical substance exposure at work (German TRGS 900):

| Chemical name | CAS No. | TLV (mg/m ³) |
|---|------------|--------------------------|
| Xylene | 1330-20-7 | 221 |
| Solvent naphtha (petroleum), light aromatic | 64742-95-6 | 100 |
| n-Butyl acetate | 123-86-4 | 480 |

Hand protection: Use materials resistant to organic solvents (rubber, special plastic). Always wear protective gloves.

Eye protection: Wear safety goggles, face protection when spraying.

Skin protection: Wear safety clothes.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|------------------------|
| Form: | Liquid |
| Colour: | Colorless |
| Odour: | Very slight |
| Boiling point: | 126 °C n-butyl acetate |
| Flash point: | 28 °C ISO 3679 |
| Ignition point: | 370 °C n-butyl acetate |
| Density (kg/l): | 0.92 ISO 2811 |
| Viscosity: | DIN4 20°C 11 s |
| Explosion limits lower (vol. %): | 0.8 |
| Explosion limits upper (vol.%): | 7.00 |
| Vapour pressure (Pa/20°C): | 1066 n-Butyl acetate |
| Contents of dry substance (wt. %): | 34 |
| Solubility in water: | Insoluble |

10. STABILITY AND REACTIVITY

Stability: The product is stable under the normal handling, storage and use conditions. Keep tightly closed in the original packaging.

Incompatibility: Not reactive and compatible with the majority of usual substances, except for extreme oxidants. Keep tightly closed in the original packaging.

11. TOXICOLOGICAL INFORMATION

Inhalation: Long inhalation of the organic solvents present in product in concentration, which exceeds the declared threshold limit value (TLV) (Chap. 8), may irritate the mucous tissue of respiratory system and even affect the normal functioning of liver, kidney and central nervous system.

Ingestion: At the ingestion the product may cause tissue damages in digestive tract.

Contact with skin: Long and intensive contact with skin may cause the skin to become dry.
Contact with eyes: Product drops or its vapours in high concentrations may cause irritation of eyes.

The symptoms of the product's effects on the human body are stated in Chapter 4.

| Chemical name: | CAS No. | LC50 inhalation | LD50 - Oral | LD50 Dermal |
|---|------------|---|--------------------------------|------------------------------------|
| Xylene | 1330-20-7 | Inhalation LC50 (4h) Rat = 6350 mg/l | Oral LD50 Rat = 8700 mg/kg | |
| Solvent naphtha (petroleum), light aromatic | 64742-95-6 | Inhalation LC50 Rat > 5 mg/l | Oral LD50 Rat > 2000 mg/kg | |
| n-Butyl acetate | 123-86-4 | | Oral LD50 Rat = 14000 mg/kg | Dermal LD50 Rabbit = 5000 mg/kg |

12. ECOLOGICAL INFORMATION

The product contains 66 % of volatile organic substances.

In nature the product is not easily bio-degradable. The product should not be spilled in the ground, water, watercourses, drains and the cleaning device.

The recommended degradation method is the use of the high temperature incinerator.

| Chemical name | CAS No. | Ecotoxicity conc.: |
|---|------------|--|
| Xylene | 1330-20-7 | Aquatic LC50 fish = 1 - 10 mg/l Aquatic LC50 Daphnia = 1 - 10 mg/l Aquatic LC50 bacteriae = 10 - 100 mg/l |
| Solvent naphtha (petroleum), light aromatic | 64742-95-6 | Aquatic LC50 fish = 1 - 10 mg/l Aquatic LC50 Daphnia = 1 - 10 mg/l Aquatic LC50 bacteriae = 1 - 10 mg/l |
| n-Butyl acetate | 123-86-4 | Aquatic LC50 (96h) fish = 184 mg/l Aquatic LC50 (96h) Daphnia = 18 mg/l Aquatic LC50 bacteriae > 1000 mg/l |

13. DISPOSAL CONSIDERATIONS

Contaminated products: The product leftovers , waste and useless packaging should be handled in accordance with the Regulations on processing of special and dangerous waste (dir. 91/689/EEC, dir. 2000/532/EC).

Waste classification number: 08 01 11
Waste hazardous characteristic: H5 ; H3-B

The recommended degradation method is the use of the controlled high temperature incineration or disposal to the deposits for dangerous substances.

Contaminated packaging: In case the metal packaging can not be reused, it will be recycled in the ironworks or disposed at special deposits (dir. 94/62/EC, dir. 1999/177/EC).

14. TRANSPORT INFORMATION

Transport by road/by railway - ADR/RID:

| | | |
|--------------------------|------|----------------------------------|
| UN No: | 1263 | PAINT RELATED SUBSTANCES (640 E) |
| Class: | 3 | Flammable liquids |
| Packing group: | III | |
| Symbol of hazard: | 3 | |

Hazard number: 30

Transport by sea – IMDG:

UN No: 1263
Class: 3.3
Page: 3372
Label: 3

15. REGULATORY INFORMATION

Labelling:



Contains: xylene ; aliphatic polyisocyanate
Contains isocyanates. See information supplied by the manufacturer.

R-phrases:

R 10 Flammable.
R 20/21 Harmful by inhalation and in contact with skin.
R 37/38 Irritating to respiratory system and skin.
R 43 May cause sensitisation by skin contact.
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 67 Vapours may cause drowsiness and dizziness.

S-phrases:

S 16 Keep away from sources of ignition - No smoking.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 51 Use only in well-ventilated areas.
S 61 Avoid release to the environment. Refer to special instructions/safety data sheet.

FOR PROFESSIONAL USE ONLY!

Regulations: This safety data sheet has been prepared according to the Directive 67/548, 88/379, 92/32, 99/45.

16. OTHER INFORMATION

Meaning of R sentences from the Chapter 3:

R 43 May cause sensitisation by skin contact.
R 10 Flammable.
R 20/21 Harmful by inhalation and in contact with skin.
R 38 Irritating to skin.
R 66 Repeated exposure may cause skin dryness or cracking.
R 67 Vapours may cause drowsiness and dizziness.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 37 Irritating to respiratory system.
R 65 Harmful: may cause lung damage if swallowed.

Changes to the sheet were made in section: 2., 3., 8., 9., 11., 12., 14., 15., 16.

The information in this Safety Data Sheet refer only to the mentioned product in the form as delivered and it is not necessary valid when this material is used in the combination with other materials or in the processes, which are not foreseen in the instructions for use. This information is correct to the supplier's best of knowledge and reliable at the time of the publication of this Safety data sheet. It is the user's responsibility to ascertain the suitability of the product for a specific use.

The data in this Safety data sheet do not prove the quality of the product, they are only the instructions for the safe use of the product with the user.

In case of non-compliance with the measures or incorrect use of the product , stated in the Safety data sheet we do not accept any responsibility for the consequences.