

SAFETY DATA SHEET

KD 32

Safety Data Sheet: KD 32

1. Identification of the substance / preparation and the Company

1.1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION.

Name KD 32

Chemical name or synonyms MIXTURE OF POLYMERS POLIISOCYANIQUES
IN ORGANIC SOLVENTS

1.2 USE OF THE SUBSTANCE / PREPARATION PROTECTOR , reviving

1.3 IDENTIFICATION OF THE COMPANY

Company name INDUSTRIA CHIMICA GENERAL LLP

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1.4 TELEPHONE NUMBER EMERGENCY CALL

For urgent inquiries refer to (+39) 02.6610.1029 Centro Antiveleni Niguarda Milano , Milano, Italia

2. Hazards Identification.

2.1 CLASSIFICATION OF THE SUBSTANCE OR PREPARATION.

This preparation is classified as dangerous under 67/548/EEC and 1999/45/EC and subsequent amendments. Therefore, this product requires a safety data sheet in accordance with Regulation (EC) 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and / or the environment are contained in sections 11 and 12 of this sheet .

HAZARD SYMBOLS: F - XI PHRASES : 11-36-43-66-67

2.2. HAZARDS IDENTIFICATION

This product, based on its chemical and physical characteristics must be considered flammable easily (flash point below 21 ° C).

EYE. MAY CAUSE AWARENESS IN CONTACT WITH SKIN.

REPEATED EXPOSURE MAY CAUSE DRYING AND CRACKING THE SKIN.

INHALATION OF VAPOR MAY CAUSE DROWSINESS AND DIZZINESS.

This product contains isocyanates. Manufacturer's data are as follows : Loans products that usecontienet isocyanates may have an irritant effect on the mucous membranes , especially those of the respiratory tract, may give rise to hypersensitivity reactions . Inhalation of vapors or mists may cause awareness . During the use of products containing isocyanates it is necessary to adopt thecare provided for all products contiennet solvents and especially avoid inhalation of vapors and aerosols. Workers who have had allergic reactions or asthma , or who are predisposed to diseases respiratory tract, should not be intended for jobs that include the use of products containing isocyanates.

3. Composition / Information on ingredients

Substances that are hazardous to health under Directive 67/548/EC and amendments for which our successive exist recognized exposure limits

Name Concentration% (C) Classification

DIBUTYL LAURATE TIN 0.3 <= C < 0.35 R20/21/22 Xn

Case No. 77-58-7 Xi R36/38

EC No 201-039-8 N R51/53

PREPOLYMER POLI- ISOCIANIQUE ALIPHATIQUE 19.5 <= C <21 Xi R43

DIPROPYLENE GLYCOL , ETHER 3.5 < = C <4

Case No. 34590-94-8

EC No 252-104-2

Substance with a workplace exposure limit of Community provisions.

ACETATE 2-methoxy -1- METHYLETHYL 1.5 <= C < 2 R10

Case No. 108-65-6 R36 Xi

EC No 203-603-9

Index No 607-195-00-7

CYCLOHEXANONE 0.2 <= C < 0.25 R10

Case No. 108-94-1 Xn R20

EC No 203-631-1 Index No 606-010-00-7

4. help First

EYES : Wash immediately with plenty of water for at least 15 minutes. Consult a physician.

SKIN : Wash immediately with plenty of water. Remove contaminated clothing.

Call a physician immediately. Wash contaminated clothing separately before reuse.

INHALATION: Immediately drive the addict about the great outdoors; if breathing stops or is difficult, administer artificial respiration, call your doctor immediately.

INGESTION : Call a physician immediately. Induce vomiting only if indicated by the doctor. nothing administered orally if the subject is unconscious.

5. Control measures against fire

GENERAL INFORMATION Cool containers with water jet in order to avoid product decomposition and release of hazardous substances to human health. Exposure to fire containers can increase the pressure point expose them to a risk of explosion. Always make use of equipment fire protection complete. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water and

the remains of the fire in accordance with the standards.

SUITABLE EXTINGUISHING MEDIA The extinction equipment should contain carbon dioxide, foam, powder chemical. For leaks and spills that have not caught fire, nebulized water may be used to disperse the flammable fumes and protect the individuals taking part in stemming the leak.

NOT SUITABLE EXTINGUISHING MEDIA Do not use water jets. Water is not effective for putting fire, but can be used to cool containers exposed to flames to prevent risks bursting and explosion.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products (oxides carbon , toxic pyrolysis products, etc .) .

EQUIPMENT Helmet with visor, fireproof clothing (fireproof jacket and trousers closed at wrists and legs and waist) , work gloves (fireproof , cut proof and dielectric), self-respirator (self-protector) .

6. Measures Accidental Release

PERSONAL PRECAUTIONS Eliminate all sources of ignition (cigarettes, flames , sparks, etc .) Of the object area

of the leak. If the product is solid, avoid dusting spray powder with water within cons -indications. In the presence of dust or fumes in the air, pass protection for the respiratory tract.

Block the leakage in the absence of danger. Do not handle damaged containers or the product without having before donning appropriate protective gear. Away those not equipped. For

information on risks for the environmental and health, respiratory protection, ventilation and personal protection devices , refer to the other sections of this sheet.

ENVIRONMENTAL PRECAUTIONS The product must not penetrate the sewers, in waters surface, ground water and neighbouring areas.

METHODS FOR CLEANING UP For liquid products , suck into a suitable container (made of material compatible with the product) and soak up any leaked product with an inert material (sand , vermiculite , earth diatomaceous earth, Kieselguhr, etc. .) . Recover as much of the material using non-sparking equipment and place containers for disposal. If the product is solid, retrieve using mechanical sparking and place in plastic containers. Remove residue using a jet of water in the absence of contraindications. Provide adequate ventilation of the leakage site. Contaminated material should be accordance with point 13.

7. Handling and storage

Avoid the accumulation of electrostatic charges. Keep containers closed and in a well ventilated area. Vapors can ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring cross ventilation. Without adequate ventilation, vapors may accumulate at the bottom and ignite at a distance, if boot, with the risk of flashback. Keep away from sources of heat, sparks and open flames, do not smoke, do not use matches or lighter. Has put the containers earthed while decanting and wear antistatic shoes.

The vigorous stirring and vigorous flow of liquid in the tubes and equipment may cause the formation and the accumulation of electrostatic charges due to the low conductivity of the product.

To avoid the risk of fire or explosion, never use compressed air when moving the product.

Open containers carefully, because they may be under pressure.

8. Exposure controls / personal protection.

8.1 EXPOSURE LIMITS

Dénomination	Type	état	TWA/8h		STEL/15min		
			mg/m ³	ppm	mg/m ³	ppm	
DIPROPYLENE GLYCOLE, ETHER	TLV-ACGIH		808		909		
	TLV	B		50			Peau
	OEL	EU	308	50			Peau
	VLEP	F	308	50			Peau
ACETATE DE 2-METHOXY-1-METHYLETHYLE	TLV	B		50		100	Peau
	OEL	EU	275	50	550	100	Peau
	VLEP	F	275	50	550	100	Peau
	TLV-ACGIH		80		200		Peau
CYCLOHEXANONE	TLV	B		10		20	Peau
	TLV	CH	100	25	200	50	Peau
	OEL	EU	40,8	10	81,6	20	Peau
	VLEP	F	40,8	10	81,6	20	Peau
	TLV-ACGIH		1440				
ACETATE D'ETHYLE	TLV	B		400			
	TLV	CH	1400	400	2800	800	
	VLEP	F	1400	400			
DIISOCYANATE D'HEXAMETHYLENE	TLV-ACGIH		0,034				Peau
	TLV	B		0,005			Peau
	VLEP	F	0,075		0,15		Peau

8.2 EXPOSURE CONTROLS

The use of appropriate technical measures should always have priority over the use of devices personal protective equipment, ensure adequate ventilation of the workplace through a suction system or appropriate exhaust stale air . In the event that such measures would not maintain the level of concentration of the product below the exposure limit values in the workplace, wear protection for airways. During use of the product, refer to the label for hazard details. For the choice of personal protective equipment, seek advice from chemical suppliers . DevicesPersonal protection equipment must comply with the standards below.

RESPIRATORY PROTECTION. In case of exceeding the maximum concentration on the workplace , wear a mask with a semi ABEK2P3 for gases, vapors and dust filter (see EN141). Devices Use respiratory protection, such as masks with organic vapor cartridge and for powders / dusts is necessary in the absence of technical measures to limit the exposure of personnel. The protection provided by masks is in any case limited. For high concentrations at the site work or in an emergency , when exposure levels are unknown , make sure to make use of self-contained breathing compressed air open circuit (see standard EN 137) respirator or external air intake when using a mask full , partial mask or mouthpiece (see standard EN 138) .

HAND PROTECTION . Protect your hands using work gloves type LCT Film Laminate (see EN374).

It is recommended to apply a barrier cream on the hands. For the choice of glove material work, is necessary to consider the following factors : degradation , breakage times and permeation. In the case of preparations the resistance work gloves should be tested before use to the extent that it cannot be established priori. The wear gloves time depends on the length of exposure.

EYE PROTECTION . Put glasses tight security side protection (see standard EN 166).

SKIN PROTECTION . Put coveralls with long sleeves and safety shoes to use professional (see standard EN 344). Wash with soap and water after removing protective clothing. Wash clothing before reuse .

9. Physical Properties and chemical

COLOR Trasparent

ODOR Piquant

PHYSICAL STATE Liquid

VISCOSITY Not available

Not available VAPOR DENSITY

Not available EVAPORATION RATE

Oxidizing properties not available

PARTITION COEFFICIENT : Not available N-OCTANOL/WATER

PH Unavailable

BOILING POINT Not Available

FLASH POINT 2 ° C

EXPLOSIVE PROPERTIES Not available

VAPOR PRESSURE Not available

Specific gravity kg/l.0 94

10. Stability and reactivity

The product is stable under normal conditions of use and storage. By the effect of heat or in case of fire carbon oxides and vapors may be released : these can be harmful to health. Vapors may form explosive mixtures with air. Dipropylene glycolmonométhyl ether may react with oxidants. Heated to decomposition, it emits smoke and acrid fumes and irritating . Its flash point is 83 ° C.

1-methoxy -2- propyl acetate: it is stable, but in contact with air, it can lead to a slow productionperoxides which explode due to the increase in temperature. It can react violently with oxidants, with strong acids and alkali metals. For storage, avoid copper, aluminum and their alloys. Keep in an inert atmosphere and protected from humidity because it easily hydrolyses.

Ethyl acetate may decompose when heated with water and reacts with strong oxidants. See INRS N18 ,Ed.1991 .

11. Toxicological information

Acute effects: eye contact this product will cause irritation. Symptoms may include redness, edema, pain and tearing. Inhalation of vapors may cause mild irritation of the upper respiratory tract; the skin contact may cause slight irritation. Ingestion can lead to disorders health include: stomach pain and sting, nausea and vomiting. Contact of product with skin may cause sensitization (contact dermatitis) . Dermatitis derives as a result inflammation of the skin, which begins in the zones that are in repeated contact with the sensitizing agent lesions. the skin may include : erythema , edema , papules, vesicles , pustules , scales , cracks and phenomena exudation , which vary according to the phases of the disease and affected areas . The acute phase is characterized by erythema, edema and exudation. Chronic phase is characterized by scaly, dry , cracks and skin thickening . Repeated exposure this product may have a degreasing action on the skin, producing dryness and chapped skin. This product contains highly volatile substances that can cause serious depression of the central nervous system, with effects such as drowsiness, dizziness, loss of reflexes, narcosis. Dipropylene glycol monomethyl ether: the experimental toxicity data exclude it as a danger to health, time that was LD50/par orally in rats : 5660 mg / kg; LD50/peau the rat 9500mg/kg ; slight eye irritation and rabbit skin .

The ACGIH threshold for 8 hours is 606 mg/m³, unless potential dermal effects .

1-methoxy -2-propanol and corresponding acetate: the main route of entry is the skin , while the path breathing is less important , given the low vapor pressure of the product. Above 100 ppm is noted irritation of eyes, nose and mucous oropharyngeal. The exposure limit 100 ppm is recommended for 8 hours; At 1000 ppm note of balance disorders and severe irritation eyes .

For further details refer to the safety data sheet No. 221 of INRS. Clinical and laboratory examinations performed on exposed volunteers revealed no abnormalities. Acetate produces greater skin irritation and eye by direct contact.

There were no reports of chronic effects on humans. The in vitro genotoxicity tests on animals have shown negative results. No significant effect in studies on animal reproduction. The following experimental data confirm that the substance is not even harmful: oral LD50 in the rat = 7900 mg / kg , CL50/inhalation by rat / 4:00

= 55.2 mg / l (plug toxicological N 21).

ACETATE 2-methoxy -1- METHYLETHYL : oral LD50 (mg / kg) > 5000 (RAT) ; Dermal LD50 (mg / kg) > 5000 (RAT) .

12. Ecological Information

There are no specific data on this preparation. Use according to good working practices and avoid dispersing the product in the environment. Avoid absolutely disperse the product in the field, sewers or water. If the product reach waterways, sewer or has contaminated the ground or vegetation, notify immediately authorities. Adopt all necessary measures to minimize the effects on ground water.

13. Considerations Disposal

Proceed if possible reuse. Product residues should be considered special waste dangerous. The dangerousness of waste containing this product should be evaluated on the basis of the provisions legal effect. Disposal must be performed through an approved for the treatment of waste, in accordance with the national regulation and possible local regulations.

Waste transportation may be subject to ADR.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national regulations applicable to waste treatment.

14. Transport Information

The goods must be transported by vehicles authorized to the carriage of dangerous goods according to the requirements of the current edition of the ADR Agreement and national provisions.

Transportation must be in their original packaging and in any case unassailable packaging content and not likely to generate with the content of hazardous reactions. The staff takes care of loading and unloading dangerous goods must be properly trained on the hazards present the material in question and the potential to adopt emergency procedures.

Transport routier et par chemin de fer:

ADR/RID: 3
UN: 1866
Packing Group: II
Etiquette: 3
Nr. Kemler: 33
Proper Shipping Name: Resina in soluzione
Special Provision: 640D



Transport par mer (maritime)

Classe IMO: 3
UN: 1866
Packing Group: II
Label: 3
EMS: F-E, S-E
Proper Shipping Name: Resin solution



Transport par avion:

IATA: 3
UN: 1866
Packing Group: II
Label: 3
Cargo: Mode d'emballage: 307 Quantité maximale: 60 L.
Pass.: Mode d'emballage: 305 Quantité maximale: 5
Instructions particulières: A3



15. Informations réglementaires



R 11 FLAMMABLE.

R 36 IRRITATING FOR EYE.

R43 MAY CAUSE AWARENESS IN CONTACT WITH SKIN.

R 66 REPEATED EXPOSURE MAY CAUSE DRYING AND CRACKING THE SKIN.

R 67 Vapours may CAUSE DROWSINESS AND DIZZINESS.

S 2 KEEP OUT OF REACH OF CHILDREN.

S 24 AVOID CONTACT WITH SKIN.

37 S TO GLOVES.

S 46 If swallowed, SEEK IMMEDIATE MEDICAL ATTENTION AND SHOW PACKAGE OR LABEL.

Contains isocyanides. See information supplied by the manufacturer.

Contains: POLI-PREPOLYMER ISOCIANIQUE ALIPHATIQUE

Danger labeling under directives 67/548/EEC and 1999/45/EC and subsequent amendments.

Workers exposed to this chemical agent must not undergo health checks, provided results risk assessment shows that the risk to health and safety are modest and that the measures of the Directive 98/24/EC are sufficient

16. Additional information

Text of R -phrases quoted in section 3 of the sheet.

R10 Flammable .

R11 FLAMMABLE.

R20 Harmful by inhalation.

R20/21/22 HARMFUL BY INHALATION, SKIN AND IF SWALLOWED.

R23 Toxic by inhalation.

R36 EYE .

R36/37/38 IRRITATING TO EYES, SKIN AND RESPIRATORY TRACT.

R36/38 IRRITATING TO EYES AND SKIN.

R42/43 MAY CAUSE AWARENESS BY INHALATION AND SKIN.

R43 MAY CAUSE AWARENESS IN CONTACT WITH SKIN.

R51/53 TOXIC TO AQUATIC ORGANISMS MAY CAUSE LONG-TERM NEGATIVE EFFECTS IN THE AQUATIC ENVIRONMENT.

R65 HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.

R66 REPEATED EXPOSURE MAY CAUSE DRYING AND CRACKING THE SKIN.

R67 VAPOR MAY CAUSE DROWSINESS AND DIZZINESS.

GENERAL REFERENCES:

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments (technical adjustment XXIX).
3. Regulation (EC) 1907/ 2006 of the European Parliament (REACH).
4. The Merck Index ISSUE 10
5. Handling Chemical Safety
6. NIOSH - .Registry of Toxic Effects of Chemical Substances
- 7 INRS - Toxicological sheet.
- 8 Patty - Industrial Hygiene and Toxicology
9. N.I. Sax - Dangerous properties of Industrial Materials - 7th Ed 1989

Note for users

The data contained in this sheet is based on our own knowledge on the date of the last edition . Users should verify the accuracy and completeness of the information related to the specific use of product . e document should not be construed as a guarantee on any specific product property.

Since we have no way to verify the use of the product, users must observe the laws and Common provisions on health and safety. We will not be responsible for improper uses.

Changes from the previous revision.

Changes were made to the following sections: 01 /15