

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

Product information

Product name : ZERO-IN POLY W
Product code : M223100K005000
Use : Photoengraving emulsion
Company : Kiian SpA

Via A. De Gasperi 1
22070 Luisago

Telephone : +390319090111
Telefax : +390319090153
E-mail address : safety@kiian.it

In order to get more information and in case of emergencies please address to Kiian.

: Tel. +39-031-9090111
Fax +39-031-9090153

2. HAZARDS IDENTIFICATION



Hazardous components : Tripropylene glycol diacrylate (tpgda)

R-phrase(s) :

May cause sensitization by skin contact.

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

S-phrase(s) :

Avoid contact with skin.

Wear suitable gloves.

Use appropriate container to avoid environmental contamination.

This material and/or its container must be disposed of as hazardous waste.

Version 1

Revision date 14.06.2007

Print Date 27.07.2007

3. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature** : Photoengraving emulsion**Hazardous components** :

Components	CAS-No.	EEC-No.	Symbol(s)	R-phrases	Concentration [%]
Methanol	67-56-1	603-001-00-X	T, F	R23/24/25, R39/23/24/ 25, R11	>= 0,1 - < 0,2
N-Methyl-2-Pyrrolidone	872-50-4	606-021-00-7	Xi	R36/38	>= 1 - < 3
Oligomer-Acrylic Urethane Aliphatic			Xi	R36	>= 3 - < 5
Tripropylene glycol diacrylate (tpgda)	42978-66-5		Xi, N	R43, R36/37/38, R51/53	>= 3 - < 5
Modified acrylate oligomer			Xi	R36	>= 7 - < 10

4. FIRST AID MEASURES

- General advice** : When symptoms persist or in all cases of doubt seek medical advice.
Never give anything by mouth to an unconscious person.
- After Inhalation** : Remove to fresh air.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
If unconscious place in recovery position and seek medical advice.
- After Skin contact** : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognized skin cleanser.
Do NOT use solvents or thinners.
Put shower on working place
- After Eye contact** : Irrigate copiously with clean, fresh water for at least 10 minutes,
holding the eyelids apart.
Remove contact lenses.
Seek medical advice.
Put eye-washer on working place
- After Ingestion** : If accidentally swallowed obtain immediate medical attention.
Keep at rest.
Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Keep containers and surroundings cool with water spray.
- Extinguishing media which must not be used for safety reasons : Do NOT use water jet.
- Specific hazards during fire fighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
Cool closed containers exposed to fire with water spray.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment.
Ventilate the area.
Refer to protective measures listed in sections 7 and 8.
Material can create slippery conditions.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods for cleaning up : Clean with detergents. Avoid solvents.
Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
- Additional advice : Refer to section 15 for specific national regulation.

7. HANDLING AND STORAGE**Handling**

Safe handling advice : Avoid exceeding of the given occupational exposure limits (see section 8).
 Use only in area provided with appropriate exhaust ventilation.
 Avoid contact with skin, eyes and clothing.
 Smoking, eating and drinking should be prohibited in the application area.
 Avoid inhalation of vapour or mist.
 For personal protection see section 8.
 Thoroughly mix before using
 After using, store in a well-sealed container

Storage

Requirements for storage areas and containers : Observe label precautions.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Store in accordance with the particular national regulations.
 Store between 5° an 35°C in a dry, well ventilated place away from source of heat, ignition and direct sunlight.
 No smoking.
 Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : Keep away from oxidising agents and strongly acid oralkaline materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value [mg/m ³]	Value [ppm]	Basis
N-Methyl-2-Pyrrolidone	872-50-4	400,00	100,00	

Personal protective equipment

Respiratory protection : Apply technical measures to comply with the occupational exposure limits.
 This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.
 If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.

Hand protection : For prolonged or repeated contact use protective gloves.
 Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.
 Skin should be washed after contact.
 Wash your hands and put on barrier creams

Version 1

Revision date 14.06.2007

Print Date 27.07.2007

- Eye protection : Chemical resistant goggles must be worn.
- Skin and body protection : Skin should be washed after contact.
Personnel should wear protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : liquid
- Flash point : > 63 - 100 °C
- Density : 1,07 g/cm³
- Viscosity : > 60 s
Transversale section: 6 mm
Method: 2431 '84 (ISO 6)
- Solids by weight : 35 %

10. STABILITY AND REACTIVITY

- Conditions to avoid : Our products were manufactured in compliance with safety standards to avoid decomposition and degrading under the defined conditions. Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring it.
- Hazardous reactions : Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

11. TOXICOLOGICAL INFORMATION

- Acute inhalation toxicity : Exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects.
Such as: mucous membrane irritation, respiratory system irritation, adverse effects on kidney, liver and central nervous system.
Symptoms and signs: headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness.
Inhalation of airborne droplets may cause irritation of the respiratory tract.
- Skin irritation : Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in desiccation of the skin.
The product may be absorbed through the skin.
- Note : The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

Methanol

OBSERVATIONS ON HUMAN SUBJECTS: Methanol poisoning as a result of ingestion produces three types of effect. The first to appear is a narcotic effect, similar to that observed in ethanol poisoning. The next to appear is metabolic acidosis, caused by an accumulation of formate which is produced more quickly than it is eliminated. The third type of effect consists in disorders affecting vision and the nervous system. In human subjects, exposure (of variable intensity and duration) to methanol vapours causes irritation to all the mucous membranes, headache, buzzing in the ears, tiredness, insomnia, nystagmus, tremors, dizziness, nausea, colic, dilated pupils, double vision, blindness, itching of the skin, eczema and dermatitis.

12. ECOLOGICAL INFORMATION

Further information : The product contains dangerous substances for the environment (see chapter n° 2), The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

Tripropylene glycol diacrylate (tpgda) R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product : The product should not be allowed to enter drains, water courses or the soil.
Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

14. TRANSPORT INFORMATION

IATA : Not classified as dangerous in the meaning of transport regulations.
IMDG : Not classified as dangerous in the meaning of transport regulations.
ADR : Not classified as dangerous in the meaning of transport regulations.

15. INFORMATION ABOUT NORMS

Hazardous components which must be listed on the label:

- Tripropylene glycol diacrylate (tpgda)

Symbol(s) : Xi Irritant

Version 1

Revision date 14.06.2007

Print Date 27.07.2007

R-phrases(s)	: R43 R52/53	May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S24 S37 S57 S60	Avoid contact with skin. Wear suitable gloves. Use appropriate container to avoid environmental contamination. This material and/or its container must be disposed of as hazardous waste.
	:	

16. OTHER INFORMATION**Further information**

Methanol	R23/24/25 R39/23/24/25 R11	Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Highly flammable.
N-Methyl-2-Pyrrolidone	R36/38	Irritating to eyes and skin.
Oligomer-Acrylic Urethane Aliphatic	R36	Irritating to eyes.
Tripropylene glycol diacrylate (tpgda)	R43 R36/37/38 R51/53	May cause sensitization by skin contact. Irritating to eyes, respiratory system and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Modified acrylate oligomer	R36	Irritating to eyes.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Version: 1.8

Revision date 14.06.2007

SDS updated to the last Regulation (EC) No 1907/2006

ZERO-IN POLY W

Version 1

Revision date 14.06.2007

Print Date 27.07.2007