

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: METPREP LTD.
CURRIERS CLOSE
CHARTER AVENUE
COVENTRY CV4 8AW

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CHEMICAL NAME: Methacryle acid ester and accelerator

PRODUCT: VARI SET LIQUID

PRODUCT NUMBERS: 11 10 29

2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NATURE:
Methacryle acid ester and accelerator

INGREDIENT (S):	CAS NUMBER:	%:	HAZARD SYMBOL:	R PHRASES:
Tetrahydrofurfuryl-2-methacryalte	2455-24-5	> 50%	Xi	36/37/38
Hydroxypropyl methacrylate	27813-02-1	20 - 30 %	Xi	36/38
1,6-Hexandiole-di-methacrylate	6606-59-3	< 5%	Xi	36/37/38
N,N Dimethyl - para toluidine	29256-93-7	< 1%	T	23/24/25/33

3. HAZARDS IDENTIFICATION

Xi IRRITANT
Irritates eyes, respiratory organs and skin

4. FIRST AID MEASURES**Inhalation:**

Remove to fresh air. Keep at rest. Call for prompt medical attention.

Eye contact:

Irrigate copiously with clean, fresh water for at least 15 minutes, holding eyelids apart. Seek medical advice.

Skin contact:

Wash skin thoroughly with soap and water or use recognized skin cleanser. Should irritation occur, seek medical attention.

Ingestion: Affected person should drink 500 - 800 ml water, if possible with suspended activated carbon. In case of spontaneous vomiting, ensure that the vomitus can drain freely to prevent risk of suffocation. Lay person on their side. Let them drink water repeatedly. Artificial induction of vomiting should be restricted to trained first aid staff. Administer nothing in case of unconsciousness. Seek medical attention.

Further details: Remove saturated clothing. Seek medical attention in case symptoms occur that can be connected with the influence of the product or its vapours on eyes, respiratory organs or skin.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: water fog, foam, CO₂, dry powders.

Unsuitable extinguishing media: high-pressure water jet

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Particular fire hazards: Possible development of flammable and explosive vapour/air mixtures.

Protective equipment for fire-fighters: Wear self-contained breathing apparatus.

Further details: In case of fire cool container and move to a safe place. Danger of polymerisation. Do not release the water used for extinguishing into the drains, soil or surface waters. Any residue must be disposed of according to local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not inhale vapours. Avoid contact with skin, eyes and clothing. Ventilate room well. Keep from ignition sources.

Environmental precautions: Prevent contamination of soil, drains and surface waters.

Cleaning methods: Bind with suitable material (such as sand, sawdust, diatomaceous earth or universal binder) and clean off. Seal into special containers and dispose of according to regulatory requirements. Observe EX protection when pumping off.

7. HANDLING AND STORAGE

HANDLING: Keep receptacles tightly sealed. Keep away from heat and direct sunlight. Ensure good ventilation/exhaustion at the workplace.

INFORMATION ABOUT FIRE- AND EXPLOSION PROTECTION: Keep ignition sources away. – Do not smoke. Protect against electrostatic discharges.

STORAGE: Close container immediately after use and protect from direct sunlight. Store in a cool location. Store away from foodstuffs.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS: Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles. Protect from exposure to light.

INDUSTRIAL HYGIENE PRACTICES: Wash face and hands thoroughly with the soap and water after use and before eating, drinking, smoking or applying cosmetics.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

HAZARDOUS INGREDIENT (S):	PEL (OSHA):	TLV (ACGIH):	COMPANY
RECOMMENDATION:			

Not required

PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTION AND HYGIENE

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at end of work. Avoid contact with the eyes or skin.

RESPIRATORY PROTECTION:

Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate. In the event of formation of particularly high levels of vapor a self contained breathing apparatus may be appropriate.

EYE PROTECTION: Safety glasses or chemical splash goggles.

HAND PROTECTION: Wear suitable gloves. Solvent resistant or rubber gloves. Gloves should be changed regularly and if

excessive exposure has occurred.

OTHER: Wear suitable protective clothing.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid
Colour:	clear
Odour:	ester like
Boiling point:	178 °C
Melting point:	not determined
Flash point:	91 °C
Flammability:	not determined
Auto-ignition temperature:	not determined
Danger of explosion:	Product is not explosive. However formation of explosive air/vapour mixtures are possible.
Explosion limits:	not applicable
Oxidising properties:	not applicable
Vapour pressure:	0.1 mbar
Density:	1.033 g/cm ³ (20 °C)
Solubility in water:	not miscible or difficult to mix
Solubility in other solvents:	phthalates
pH value :	not determined
Viscosity :	6.6 mPa s (20 °C)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: No decomposition if used according to specification.

INCOMPATIBILITY (MATERIALS TO AVOID): In presence of radical formers (eg peroxides) deoxidizing agents and/or heavy metal ions, polymerization with heat release is possible

HAZARDOUS DECOMPOSITION PRODUCTS: No dangerous decomposition products are known

HAZARDOUS POLYMERIZATION:

CONDITIONS TO AVOID FOR HAZARDOUS POLYMERIZATION:

11. TOXICOLOGICAL INFORMATION

Oral Toxicity:	LD-50 Tetrahydrofurfuryl-2-methacrylate	4000 mg/kg	(rat/oral)
	LD-50 Hydroxypropyl-methacrylate	11200 mg/kg	(rat/oral)
	LD-50 N,N-dimethyl-p-toluidine	1767 mg/kg	(rat/oral)
Inhalation:	LC-50/4 h N,N-dimethyl-p-toluidine	>2 mg/l	
Skin irritation:	THF-2-MA non-irritating 24h		species rabbit
	method occlusive FDA Draize		
Eye irritation:	HPMA non-irritating 24h		species rabbit
	method occlusive FDA Draize		
Sensitization:	THF-2-MA slightly irritating	species rabbit eye	Method OECD 405
	HPMA irritating	species rabbit eye	Method OECD 405
Further details:	THF-2-MA not sensitization		species guinea
	Method Polak, Adjuvans		
	HPMA slight sensitization		species guinea
	Method maximisation test		

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version

Irritant.

12. ECOLOGICAL INFORMATION

INFORMATION ABOUT ELIMINATION

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OTHER INFORMATION: THF-2-MA: Inherent biological elimination, OEDC 301 F,28d 75%

AQUATIC TOXICITY: Toxicity to fish: LC-50/96h: 34.7 mg/l (lit) (THF-2-MA) Species: Pimephales
Promelas.
(HPMA) LC-50/48h: 493 mg/l (lit) Species: Leuciscus idus

TOXICITY TO MICRO-ORGANISM: EC-10/16H: >1140 MG/L (lit) Species: Pseudomonas putida

GENERAL NOTES: Water hazard class 2 (self assessment). Do not allow product to reach ground water, water course or sewerage system.

13. DISPOSAL CONSIDERATIONS

PRODUCT: Must be specially treated adhering to official regulations.
PACKAGING: Disposal must be made according to official regulations .

14. TRANSPORTATION

IMDG CLASS:
MARINE POLLUTANT: No
TRANSPORT: Not dangerous according to the above specifications

15. REGULATORY INFORMATION

EC REGULATIONS –
EINECS: all chemical listed
EEC Classification: IRRITANT
Symbol: Indication of Danger



Xi Irritant

Risk Phrases: R36/37/38. Irritating to eyes, respiratory system and skin.

Safety Phrases: S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of soap and water.
S37 Wear suitable gloves.
S60 This material and its container must be disposed of as hazardous waste

16. ADDITIONAL INFORMATION

This data sheet was prepared in accordance with Directive 91/155/EEC.

The above information has been gathered from reliable sources and is believed to be correct. However, the information is provided without any warranty, either expressed or implied. MetPrep Ltd shall not be held liable for any damage resulting from the handling of or contact with the above product.