MATERIAL SAFETY DATA SHEET



METHYL ETHYL KETOXIME

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name Synonyms Item Number : 1-Methoxy-2-Propanol

- : alpha- Propylene glycol monomethyl ether; alpha- PGME
- : E48010100

Manufacturer / Supplier / Distributor Information

RAR Resin & Chemical Industries JLT11th Floor, Jumeirah Lake Towers, P.O. Box: 47381, Dubai UAETel: +971 4 4356516 / +971 4 4356517Email: info@rarresin.comFax: +971 4 4356518Website: www.rarresin.com

2. HAZARD IDENTIFICATION

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Care. 2

H351 Suspected of causing cancer.



GHS05 corrosion

Eye Dam. 1

H318 Causes serious eye damage.



Acute Tax. 4 H312 Harmful in contact with skin. Skin Sens. 1 H317 May cause an allergic reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R21-40: Harmful in contact with skin. Limited evidence of a carcinogenic effect.

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Xi; Irritant

R41:

Risk of serious damage to eyes. Xi;



Sensitising

R43:

May cause sensitisation by skin contact.

- Information concerning particular hazards for human and environment: Not applicable.
- · Label elements
- Labelling according to Regulations (EC) No 1272/2008
- The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms



Signal word danger

- Hazards-determining of component of labelling: 2-butanone oxine
- Hazard statements

H312 Harmful in contact with skin.

- H318 Causes serious eye damage.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.

Precautionary statements

- P101 if medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P321 Specific treatment (see on this label).
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Subatances

CAS No. Description

- 96-29-72-butanone oxime
- Identification number(s)
- EC number: 202-496-6
- Index number: 616-014-00-0

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4. FIRST AID MEASURES

- Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for a least 48 hours after the accident.

After inhalation:

Supply fresh air and to be sure call for a doctor.

Incase of unconsciousness place patient stably in inside position for transportation.

- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult doctor.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both cute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE FIGHTING MEASURES

- Extinguishing media
- Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6. ACCIDENTAL RELEASE MEASURES

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers / surface or ground water.
- Methods and materials for containment and cleaning up: Absorb with liquid-binding materials (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7. HANDLING AND STORAGE

- Handling:
- Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation aerosols.

- Information about fire and explosion protection: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:
- Suitable material for receptacles: stainless and carbon steel and plastics.
- · Information about storage in one common storage facility: Not required
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Additional information about design of technical facilities: No further data; see item 7.
- Control Parameters
- · Ingredients with limit values that require monitoring at the workplace; Not required.
- · Additional information: The list valid during the making were used as basis.
- Exposure controls
- Personal protective equipment:
- General Protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before break and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.
- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. Incase of intensive or lower exposure use self-contained respiratory protective device.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material and consideration of the penetration times, rates of diffusion and the degradation

Materials of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed googles

9. PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties
- General information
 - Apearance: Form:
- Colour:
- Odour:
- Odor threshold:
- •pH-valve at 20°C:

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Change in condition		
Melting point/Melting range:	-3 bis - 15°C	
Boiling point/Boiling range:	153°C	
Flash point:	62°C	
 Flammability (solid, gaseous): 	Not applicable.	
 Ignition temperature: 	315°C	
 Decomposition temperature 	Not determined.	
Self -igniting:	Not determined.	
 Danger of explosion: 	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	3,1 Vol%	
Upper:	50 Vol%	
 Vapour pressure at 20°C: 	1,41 hPa	
Density:	Not determined.	
Relative density	Not determined.	
 Specific gravity 	~0.923 @ 25°C	
 Evaporation rate 	Not determined.	
 Solubility in / Miscibility with 		
water at 20°C:	100 g/l	
 Segregation coefficient (n-octanol/water): Not determined. 		
Viscosity:		
Dynamic at 25°C:	<200 cPs	
Kinematic:	Not determined.	
Other information	No further relevant information available.	

10. STABILITY AND REACTIVITY

- Reactivity
- Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardouz reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

- Information on toxicological effects
- Acute toxicity:
- LD/LC50 values relevant for classification:

96-29-72-butanone oxime

Oral	LD50	3700 mg/kg (rat)	
Dermal	LD50	200-2000 mg/kg (rat)	
Inhalative	LC50/4 h	20 mg/l (rat)	
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Primary irritant effect:

- · on the skin: No further relevant information available
- on the eye: Strong irritant with the danger of severe eye injury.
- · Sensitization: Sensitization possible through skin contact.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) Carc. 2

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12. ECOLOGICAL INFORMATION

Toxicity

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class I (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

UN-Number	
• ADR, ADN, IMDG, IATA	Void
 UN proper shipping name 	
• ADR, ADN, IMDG, IATA	Void
 Transport hazard class(es) 	
• ADR, ADN, IMDG, IATA	
• Class	Void
 Packing Group 	
• ADR, IMDG, IATA	Void
Environment hazards:	
Marine pollutant:	No
 Special precautions for user 	Not applicable.
Transport in bulk according to Annex II of	
MARPOL73/78 and the IBC Code	Not applicable.
UN " Model Regulation":	

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
 Labelling according to Regulation (EC) No 1272/2008

- The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms



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Signal word Danger

Hazard-determining components of labelling:

2-butanone oxime

Hazard statements

H312 Harmful in contact with skin.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rising.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P321 Specific treatment (see on this label).
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

ADR: Accord europeen sur le transport des merchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Reglement international concernant le transport des marchandises dangereuses par chemim de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code of Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation

Oraganization

GHS: Globally Harmonized System of Classification and

Labelling of Chemicals EINECS: European Inventory of

Existing Commercial Chemical Substance CAS: Chemical

Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent