

SAFETY DATA SHEET

Version: 02
Date of Issue: 30 November 2018
Date of First Issue: 07 August 2012



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SAFETY DATA SHEET ACCORDING TO EC-REGULATIONS 1907/2006
(REACH), 1272/2008 (CLP) & 2015/830

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier**
Product Name M-Line GC-6
CAS No. 67-63-0
EINECS No. 200-661-7
REACH Registration No. 01-2119457558-25-XXXX
- 1.2 Recommended use of the chemical and restrictions on use**
Identified Use(s) PC14 Metal surface treatment products, including galvanic and electroplating products
Uses Advised Against None known.
- 1.3 Supplier's details**
Company Identification VISHAY MEASUREMENTS GROUP UK LTD
Stroudley Road
Basingstoke
Hampshire
RG24 8FW
United Kingdom
Telephone +44 (0) 1256 462131
Fax +44 (0) 1256 471441
E-Mail (competent person) mm.uk@vishaypg.com
- 1.4 Emergency Phone No.** (00-1) 703-527-3887 – CHEMTREC
Languages spoken 24 hours, English spoken

2. SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**
2.1.1 Regulation (EC) No. 1272/2008 (CLP) Flam. Liq. 2; H225
Eye Irrit. 2; H319
STOT SE 3; H336
- 2.2 Label elements**
Product Name According to Regulation (EC) No. 1272/2008 (CLP)
M-Line GC-6
- Hazard Pictogram(s)
 
- Signal Word(s) DANGER
- Hazard Statement(s) H226: Flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
- Precautionary Statement(s) P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P261: Avoid breathing vapours.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P308+P313: IF exposed or concerned: Get medical advice/attention.

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Additional Information None.

2.3 Other hazards None.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Propan-2-ol	67-63-0	200-661-7	01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336

For full text of H/P Statements see section 16.

3.2 Mixtures Not applicable.

4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Self-protection of the first aider

Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Do not breathe vapour. Avoid contact with skin and eyes. Contaminated clothing should be laundered before reuse.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact

IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Wash contaminated clothing before reuse. If skin irritation occurs, get medical advice/attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

IF SWALLOWED: Rinse mouth. Make victim drink plenty of water. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless instructed to do so by medical personnel. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Call a POISON CENTER/doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Unsuitable extinguishing Media

Do not use water jet. Direct water jet may spread the fire.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide. Prevent liquid entering sewers, basements and workpits; vapour may create explosive atmosphere. Vapours are heavier than air and may travel considerable distances to a source of ignition and

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- 5.3 **Advice for fire-fighters** flashback.
Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal precautions, protective equipment and emergency procedures** Caution - spillages may be slippery. Ensure operatives are trained to minimise exposures. Ensure suitable personal protection during removal of spillages. Ensure adequate ventilation. Do not breathe vapour. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use personal protective equipment as required. See Section: 8.
- 6.2 **Environmental precautions** Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.
- 6.3 **Methods and material for containment and cleaning up** Provided it is safe to do so, isolate the source of the leak. Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste. Allow small spillages to evaporate provided there is adequate ventilation.
- 6.4 **Reference to other sections** See Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

- 7.1 **Precautions for safe handling** Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Do not breathe vapour. Avoid contact with skin, eyes or clothing. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. May form explosive mixture with air particularly in enclosed spaces. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product.
- 7.2 **Conditions for safe storage, including any incompatibilities** Ground/bond container and receiving equipment. Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, sources of ignition and direct sunlight.
Storage temperature Ambient. (<10 °C)
Storage life Stable under normal conditions.
Incompatible materials Keep away from: Oxidizing agents, Corrosive Substances, Aldehydes, Halogens.
- 7.3 **Specific end use(s)** See Section:1.2

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Control parameters**
8.1.1 **Occupational Exposure Limits**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Propan-2-ol	67-63-0	400	999	500	1250	WEL

Note: WEL: Workplace Exposure Limit (UK HSE EH40).

- 8.1.2 **Biological limit value** Not established.

- 8.1.3 **PNECs and DNELs**

Propan-2-ol Derived No Effect Level	Oral	Inhalation	Dermal
Worker - Long Term - Systemic effects	-	500 mg/m ³	888 mg/kg bw/day
Consumer - Long Term - Systemic effects	26 mg/kg bw/day	89 mg/m ³	319 mg/kg bw/day

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Propan-2-ol Predicted No Effect Concentration	Value
Aquatic Compartment	PNEC Aqua (marine water) 140.9 mg/l PNEC Aqua (freshwater) 140.9 mg/l PNEC freshwater sediment 552 mg/kg dw PNEC marine sediment 552 mg/kg dw
Soil	PNEC 28 Soil mg/kg dw
STP (Sewage Treatment Plant)	PNEC STP 2251 mg/l
Hazard for predators (Secondary Poisoning)	PNEC Oral 160 mg/kg food

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit.

8.2.2 Individual protection measures, such as personal protective equipment (PPE)

Use personal protective equipment as required. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe vapour. Wash hands before breaks and after work. Do not eat, drink or smoke at the work place.

Eye/face protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Skin protection



Hand protection:

Wear impervious gloves (EN374). Nitrile rubber, Butyl rubber. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.

Recommended: Nitrile rubber, Butyl rubber.

Unsuitable gloves materials: Natural rubber / PVC.

Body protection:

Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection



Normally no personal respiratory protection is necessary. In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type A (EN141 or EN405) may be appropriate.

Thermal hazards

Not applicable.

8.2.3 Environmental Exposure Controls

Avoid release to the environment.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance
Odour
Odour Threshold
pH
Melting Point/Freezing Point
Initial boiling point and boiling range
Flash point

Physico-chemical properties of substance Propan-2-ol.
Blue Coloured liquid.
Alcohol-like Odour
Not available.
Not established.
-88.5 °C
82.3 °C (Mixture)
11.7 °C

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Evaporation Rate	2.83 (BuAc = 1)
Flammability (solid, gas)	Not applicable - liquid mixture
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	6.02 kPa @ 25 °C
Vapour density	2.1 (Air = 1)
Relative density	0.78 (H ₂ O = 1)
Solubility(ies)	Miscible with water.
Partition coefficient: n-octanol/water	0.05 log Pow (25 °C)
Auto-ignition temperature	399 °C
Decomposition Temperature	Not available.
Viscosity	2.038 mPa s (Dynamic viscosity) 25 °C
Explosive properties	Not available.
Oxidising properties	Not oxidising.

9.2 Other information None known

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Highly flammable liquid and vapour. The vapour may be invisible, heavier than air and spread along ground. May form explosive mixture with air particularly in enclosed spaces.
10.4 Conditions to avoid	Keep away from heat, sources of ignition and direct sunlight.
10.5 Incompatible materials	Flammable liquid, Oxidizing agents, Corrosive Substances, Alcohols, Strong Acids and Alkalis.
10.6 Hazardous decomposition product(s)	Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute toxicity	
Ingestion	Based upon the available data, the classification criteria are not met. LD50 (oral,rat) mg/kg: 58400 (OECD 401)
Inhalation	Based upon the available data, the classification criteria are not met. LC50 (inhalation,rat) mg/l/4h: 10000 (OECD 403)
Skin Contact	Based upon the available data, the classification criteria are not met. LD50 (Dermal, (rabbit)) ml/kg bw 16.4 (OECD 402)
Skin corrosion/irritation	Based upon the available data, the classification criteria are not met. Not irritating to skin (rabbit) (Nixon, 1975)
Serious eye damage/irritation	Eye Irrit. 2; Causes serious eye irritation. Irritating to eyes. (rabbit) (OECD 405)
Respiratory or skin sensitization	Based upon the available data, the classification criteria are not met. Skin sensitization: Sensitisation (guinea pig) - Negative (OECD 406) Respiratory sensitization: No data
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met. In vitro: Negative (Chinese Hamster ovary) (OECD 476) In vivo: Negative (mouse) (OECD 474)
Carcinogenicity	Based upon the available data, the classification criteria are not met. NOEL 5000 ppm (OECD 451)
Reproductive toxicity	Based upon the available data, the classification criteria are not met. Reproductive toxicity: NOAEL: 500 mg/kg bw/day (OECD 416) Developmental toxicity: NOAEL: 400 mg/kg bw/day (OECD 414)
STOT - single exposure	STOT SE 3; May cause drowsiness or dizziness. Adverse effects observed (Central nervous depression) (OECD 403)
STOT - repeated exposure	Based upon the available data, the classification criteria are not met. Oral: No data Inhalation: NOEC: 5000 ppm. No adverse effects observed on general toxicity

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Aspiration hazard	endpoints (OECD 451) Dermal: No data Based upon the available data, the classification criteria are not met. Viscosity: 2.038 mPa s (Dynamic viscosity) 25 °C
11.2 Other information	None.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Based upon the available data, the classification criteria are not met. Acute Toxicity: LC50 (fish) mg/l (96 hour): 10000 (OECD 203) Chronic Toxicity: No data
12.2 Persistence and degradability	Readily biodegradable.
12.3 Bioaccumulative potential	The product has low potential for bioaccumulation.
12.4 Mobility in soil	The product is predicted to have high mobility in soil. Water Soluble.
12.5 Results of PBT and VPVB assessment	Not classified as PBT or vPvB.
12.6 Other adverse effects	None known.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	This material and its container must be disposed of as hazardous waste. Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation.
13.2 Additional Information	Dispose of contents in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
14.1 UN number	UN 1219	UN 1219	UN 1219
14.2 Proper Shipping Name	ISOPROPANOL (ISOPRPYL ALCOHOL)	ISOPROPANOL (ISOPRPYL ALCOHOL)	ISOPROPANOL (ISOPRPYL ALCOHOL)
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	Not classified	Not classified as a Marine Pollutant.	Not classified
14.6 Special precautions for user	See Section: 2		
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.		
14.8 Additional Information	None.		

15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1 EU regulations	
Substance(s) of Very High Concern (SVHCs)	Not listed
CoRAP Substance Evaluation	Not listed
Annex XVII (Restrictions)	Not listed
15.1.2 National regulations	Water hazard class: 1
15.2 Chemical Safety Assessment	A chemical safety assessment is not required under REACH.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: V2.0

Updated Section: 1.2, 2.1.1, 3.1, 4, 5.1, 6.1, 6.2, 6.3, 7.1, 7.2, 9.1, 10, 11, 12.1, 13.1, 14, 15.1.1, 16.

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References: Existing Safety Data Sheet (SDS) and Existing ECHA registration(s) for Propan-2-ol (CAS No. 1330-20-7).

Literature References:

1. Nixon G, Tyson C & Wertz W. 1975. Interspecies Comparisons of Skin Irritancy. Toxicology and Applied Pharmacology 31, 481-490 (1975)

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Flam. Liq. 2; H226	Physical and chemical properties / Harmonised Classification
Eye Irrit. 2; H319	Harmonised Classification
STOT SE 3; H336	Harmonised Classification

LEGEND

LTEL: Long Term Exposure Limit

STEL: Short Term Exposure Limit

DNEL: Derived No Effect Level

OECD: Organisation for Economic Cooperation and Development

NOEC: no observed effect concentration

PNEC: Predicted No Effect Concentration

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NOEL: no observed effect level

Hazard classification / Classification code:

Flam. Liq. 2; Flammable Liquid, Category 2

Eye Irrit. 2; Eye Irritation, Category 2

STOT SE 3; Specific target organ toxicity — single exposure, Category 3

Hazard Statement(s)

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

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Annex to the extended Safety Data Sheet (eSDS)

No information available.

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