



MONOMER G SOLUTION (LOWICRYL HM23 USE CAT. #HXL010)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 08/23/2022

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SECTION 1: Identification

1.1. Identification

Product form	: Mixture
Trade name	: MONOMER G SOLUTION (LOWICRYL HM23 USE CAT. #HXL010)
Product code	: 18162A
Formula	: no data

1.2. Recommended use and restrictions on use

Recommended use	: Use as laboratory reagent, Manufacture of substances
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1.3. Supplier

Supplier

Polysciences
400 Valley Road
Warrington, PA 18976 - United States
T +1 215 343 6484 - F +1 215 343 0214
info@polysciences.com - www.polysciences.com

1.4. Emergency telephone number

Emergency number	: 24-hour emergency phone number ChemTel 1-800-255-3924
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3	Flammable liquid and vapor
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2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: Flammable liquid and vapor
Precautionary statements (GHS US)	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	%	GHS US classification
Ethyl Methacrylate	(CAS-No.) 97-63-2	61 – 70	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
n-Butyl methacrylate	(CAS-No.) 97-88-1	31 – 40	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 2, H401
4-Methoxyphenol (MEHQ)	(CAS-No.) 150-76-5	0 – 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
- First-aid measures after eye contact : 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.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Fire hazard : Flammable liquid and vapor. Highly flammable liquid and vapor.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.

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- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store at room temp. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

n-Butyl methacrylate (97-88-1)

No additional information available

Ethyl Methacrylate (97-63-2)

No additional information available

4-Methoxyphenol (MEHQ) (150-76-5)

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear colorless liquid.
Color	: Mixture contains one or more component(s) which have the following colour(s): clear Colorless
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Sweet Fruity
Odor threshold	: No data available
pH	: no data
Melting point	: no data
Freezing point	: No data available
Boiling point	: 246
Flash point	: 64
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 21.3 mbar
Relative vapor density at 20°C	: > ≥ 1
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor. Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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LD50 oral rat	13424 mg/kg mg/kg
LD50 dermal rabbit	> ≥ 9100 mg/kg mg/kg
ATE US (oral)	13424 mg/kg body weight
ATE US (dermal)	9100 mg/kg body weight

n-Butyl methacrylate (97-88-1)	
LD50 oral rat	16 g/kg
LD50 dermal rabbit	10181 mg/kg

Ethyl Methacrylate (97-63-2)	
LD50 oral rat	13424 mg/kg mg/kg
LD50 dermal rabbit	> ≥ 9100 mg/kg mg/kg
LC50 Inhalation - Rat	8300 ppm/4h ppm/4H

Skin corrosion/irritation : Not classified
pH: no data

Serious eye damage/irritation : Not classified
pH: no data

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

n-Butyl methacrylate (97-88-1)	
STOT-single exposure	May cause respiratory irritation.

Ethyl Methacrylate (97-63-2)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

n-Butyl methacrylate (97-88-1)	
LOAEC (inhalation, rat, gas, 90 days)	952 ppm Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
NOAEL (oral, rat, 90 days)	120 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. Toxic to aquatic life.

n-Butyl methacrylate (97-88-1)	
LC50 fish 1	5.57 mg/l
EC50 Daphnia 1	32 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	5.57 mg/l Test organisms (species): Oryzias latipes
NOEC chronic crustacea	1.1 mg/l

12.2. Persistence and degradability

No additional information available

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12.3. Bioaccumulative potential

n-Butyl methacrylate (97-88-1)

Partition coefficient n-octanol/water (Log Pow)	2.26
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description	: UN2277 Ethyl methacrylate, stabilized, 3, II
UN-No.(DOT)	: UN2277
Proper Shipping Name (DOT)	: Ethyl methacrylate, stabilized
Class (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT)	: II - Medium Danger
Hazard labels (DOT)	: 3 - Flammable liquid



DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Special Provisions (49 CFR 172.102)	: 387 - When materials are stabilized by temperature control, the provisions of §173.21(f) of this subchapter apply. When chemical stabilization is employed, the person offering the material for transport shall ensure that the level of stabilization is sufficient to prevent the material as packaged from dangerous polymerization at 50 °C (122 °F). If chemical stabilization becomes ineffective at lower temperatures within the anticipated duration of transport, temperature control is required and is forbidden by aircraft. In making this determination factors to be taken into consideration include, but are not limited to, the capacity and geometry of the packaging and the effect of any insulation present, the temperature of the material when offered for transport, the duration of the journey, and the ambient temperature conditions typically encountered in the journey (considering also the season of year), the effectiveness and other properties of the stabilizer employed, applicable operational controls imposed by regulation (e.g. requirements to protect from sources of heat, including other cargo carried at a temperature above ambient) and any other relevant factors. The provisions of this special provision will be effective until January 2, 2019, unless we terminate them earlier or extend them beyond that date by notice of a final rule in the Federal Register. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L

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DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
DOT Vessel Stowage Location : C - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 25 - Protected from sources of heat
Emergency Response Guide (ERG) Number : 130P
Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

Transport document description (IMDG) : UN 2277 ETHYL METHACRYLATE, STABILIZED, 3, II (20°C o.c.)
UN-No. (IMDG) : 2277
Proper Shipping Name (IMDG) : ETHYL METHACRYLATE, STABILIZED
Class (IMDG) : 3 - Flammable liquids
Packing group (IMDG) : II - substances presenting medium danger
Limited quantities (IMDG) : 1 L

Air transport

Transport document description (IATA) : UN 2277 Ethyl methacrylate, stabilized, 3, II
UN-No. (IATA) : 2277
Proper Shipping Name (IATA) : Ethyl methacrylate, stabilized
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : II - Medium danger

SECTION 15: Regulatory information

15.1. US Federal regulations

n-Butyl methacrylate (97-88-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethyl Methacrylate (97-63-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ 1000 lb

4-Methoxyphenol (MEHQ) (150-76-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

n-Butyl methacrylate (97-88-1)

Listed on the Canadian DSL (Domestic Substances List)

Ethyl Methacrylate (97-63-2)

Listed on the Canadian DSL (Domestic Substances List)

4-Methoxyphenol (MEHQ) (150-76-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

n-Butyl methacrylate (97-88-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

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n-Butyl methacrylate (97-88-1)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

Component	State or local regulations
n-Butyl methacrylate(97-88-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Ethyl Methacrylate(97-63-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
4-Methoxyphenol (MEHQ)(150-76-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Hazard Rating	
Health	: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	: 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB IC)
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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