

SAFETY DATA SHEET

Polymethyl methacrylate Standard

Section 1. Identification

Product identifier	: Polymethyl methacrylate Standard
Chemical name	: 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer
Part no.	: PL2022-2001, PL2022-2005, PL2022-2010, PL2022-3001, PL2022-3005, PL2022-3010, PL2022-5001, PL2022-5005, PL2022-5010, PL2022-6001, PL2022-6005, PL2022-6010, PL2022-7001, PL2022-7005, PL2022-7010, PL2022-8001, PL2022-8005, PL2022-8010, PL2022-9001, PL2022-9005, PL2022-9010, PL2023-0001, PL2023-0005, PL2023-0010, PL2023-1001, PL2023-1005, PL2023-1010, PL2023-2001, PL2023-2005, PL2023-2010, PL2023-3001, PL2023-3005, PL2023-3010, PL2023-4001, PL2023-4005, PL2023-4010, PL2023-5001, PL2023-5005, PL2023-5010, PL2023-6001, PL2023-6005, PL2023-6010, PL2023-7001, PL2023-7005, PL2023-7010, PL2023-8001, PL2023-8005, PL2023-8010, PL2023-9001, PL2023-9005, PL2023-9010, PL2024-0001, PL2024-0005, PL2024-0010, PL2024-1001, PL2024-1005, PL2024-1010, PL2024-2001, PL2024-2005, PL2024-2010

Relevant identified uses of the substance or mixture and uses advised against

Identified uses	: Reagents and Standards for Analytical Chemistry Laboratory Use
PL2022-2001	PMMA NOMINAL MP 500 1G
PL2022-2005	PMMA NOMINAL MP 500 5G
PL2022-2010	PMMA nominal Mp 500 10g
PL2022-3001	PMMA nominal Mp 1k 1g
PL2022-3005	PMMA nominal Mp 1k 5g
PL2022-3010	PMMA nominal Mp 1k 10g
PL2022-5001	PMMA nominal Mp 2k 1g
PL2022-5005	PMMA nominal Mp 2k 5g
PL2022-5010	PMMA nominal Mp 2k 10g
PL2022-6001	PMMA nominal Mp 3k 1g
PL2022-6005	PMMA nominal Mp 3k 5g
PL2022-6010	PMMA nominal Mp 3k 10g
PL2022-7001	PMMA nominal Mp 5k 1g
PL2022-7005	PMMA nominal Mp 5k 5g
PL2022-7010	PMMA nominal Mp 5k 10g
PL2022-8001	PMMA nominal Mp 7k 1g
PL2022-8005	PMMA nominal Mp 7k 5g
PL2022-8010	PMMA nominal Mp 7k 10g
PL2022-9001	PMMA nominal Mp 10k 1g
PL2022-9005	PMMA nominal Mp 10k 5g
PL2022-9010	PMMA nominal Mp 10k 10g
PL2023-0001	PMMA nominal Mp 13k 1g
PL2023-0005	PMMA nominal Mp 13k 5g
PL2023-0010	PMMA nominal Mp 13k 10g
PL2023-1001	PMMA nominal Mp 20k 1g
PL2023-1005	PMMA nominal Mp 20k 5g
PL2023-1010	PMMA nominal Mp 20k 10g
PL2023-2001	PMMA nominal Mp 30k 1g
PL2023-2005	PMMA nominal Mp 30k 5g
PL2023-2010	PMMA nominal Mp 30k 10g
PL2023-3001	PMMA nominal Mp 50k 1g
PL2023-3005	PMMA nominal Mp 50k 5g
PL2023-3010	PMMA nominal Mp 50k 10g
PL2023-4001	PMMA nominal Mp 70k 1g
PL2023-4005	PMMA nominal Mp 70k 5g
PL2023-4010	PMMA nominal Mp 70k 10g
PL2023-5001	PMMA nominal Mp 100k 1g

Section 1. Identification

PL2023-5005	PMMA nominal Mp 100k 5g
PL2023-5010	PMMA nominal Mp 100k 10g
PL2023-6001	PMMA nominal Mp 130k 1g
PL2023-6005	PMMA nominal Mp 130k 5g
PL2023-6010	PMMA nominal Mp 130k 10g
PL2023-7001	PMMA nominal Mp 200k 1g
PL2023-7005	PMMA nominal Mp 200k 5g
PL2023-7010	PMMA nominal Mp 200k 10g
PL2023-8001	PMMA nominal Mp 300k 1g
PL2023-8005	PMMA nominal Mp 300k 5g
PL2023-8010	PMMA nominal Mp 300k 10g
PL2023-9001	PMMA nominal Mp 500k 1g
PL2023-9005	PMMA nominal Mp 500k 5g
PL2023-9010	PMMA nominal Mp 500k 10g
PL2024-0001	PMMA nominal Mp 700k 1g
PL2024-0005	PMMA nominal Mp 700k 5g
PL2024-0010	PMMA nominal Mp 700k 10g
PL2024-1001	PMMA nominal Mp 1m 1g
PL2024-1005	PMMA nominal Mp 1m 5g
PL2024-1010	PMMA nominal Mp 1m 10g
PL2024-2001	PMMA nominal Mp 1.5m 1g
PL2024-2005	PMMA nominal Mp 1.5m 5g
PL2024-2010	PMMA nominal Mp 1.5m 10g

Supplier/Manufacturer : Agilent Technologies, Inc.
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Santa Clara, CA 95051, USA
800-227-9770

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

COMBUSTIBLE DUSTS - Category 1

GHS label elements

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Ingredient name	Synonyms	% (w/w)	Identifiers	
2-Propenoic acid, 2-methyl-, methyl ester, homopolymer	Polymethyl methacrylate	100	CAS: 9011-14-7	-

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical powder.

Unsuitable extinguishing media : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

Specific hazards arising from the chemical : May form explosible dust-air mixture if dispersed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Methods for cleaning up : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-Propenoic acid, 2-methyl-, methyl ester, homopolymer	ACGIH TLV (United States) Particulates Not Otherwise Specified (PNOS): 3 mg/m ³ . Form: Respirable. Particulates Not Otherwise Specified (PNOS): 10 mg/m ³ . Form: Inhalable.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

- : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Solid. [Powder.]
- Color** : White.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : >150°C (>302°F)
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: >250°C (>482°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not applicable.
- Vapor pressure** : Not available.
- Vapor density** : Not applicable.
- Relative density** : Not available.
- Density** : 1.2 g/cm³
- Solubility** :

Media	Result
Water	Insoluble

- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

- Median particle size** : Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials Incompatible materials: Alkali. , Amine.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Conclusion/Summary : Not available.
[Product]

Skin corrosion/irritation

Conclusion/Summary : Not available.
[Product]

Serious eye damage/eye irritation

Conclusion/Summary : Not available.
[Product]

Respiratory corrosion/irritation

Conclusion/Summary : Not available.
[Product]

Respiratory corrosion/irritation

Not available.

Conclusion/Summary : Not available.
[Product]

Respiratory or skin sensitization

Skin

Conclusion/Summary : Not available.
[Product]

Section 11. Toxicological information

Respiratory

Conclusion/Summary : Not available.
[Product]

Germ cell mutagenicity

Conclusion/Summary : Not available.
[Product]

Carcinogenicity

Conclusion/Summary : Experimental tumorigen.: Equivocal (RTECS)
[Product]

Classification

Product/ingredient name	IARC	NTP	ACGIH
2-Propenoic acid, 2-methyl-, methyl ester, homopolymer	3	-	-

Reproductive toxicity

Conclusion/Summary : Not available.
[Product]

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 irritation
 redness
- Inhalation** : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary [Product] : Not available.

General : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

N/A

Other information : Adverse symptoms may include the following: Very slightly to slightly dangerous in case of skin contact (corrosive, irritant, sensitizer, permeator), eye contact (irritant), ingestion or inhalation.

Section 12. Ecological information

Toxicity

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Conclusion/Summary [Product] : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-Propenoic acid, 2-methyl-, methyl ester, homopolymer	-	<500	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects : The products of degradation are more toxic than the product itself.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

TDG / IMDG / IATA : Not regulated.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : This material is not listed.

CEPA Toxic substances : This material is not listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : This material is listed or exempted.

United States : This material is active or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 08/26/2025

Date of previous issue : 10/21/2022

Version : 6

Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 DOT = Department of Transportation
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HPR = Hazardous Products Regulations
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 IMO = International Maritime Organization
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 TDG = Transportation of Dangerous Goods
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
COMBUSTIBLE DUSTS - Category 1	On basis of test data

Indicates information that has changed from previously issued version.

Notice to reader

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