SAFETY DATA SHEET

POL VMAC resin (CA)

Version	Revision Date:	SDS Number:	Date of last issue: 04-12-2024
8.2	07-10-2024	300000001484	Date of first issue: 01-29-2024

SECTION 1. IDENTIFICATION

Product name : POL VMAC resin (CA)

Product code : 000000000027048930

Manufacturer or supplier's details

Company name of supplier : Celanese Sales U.S. Ltd.

Address : 222 West Las Colinas Boulevard Suite 900N
Irving TX 75039

Telephone : '+1 972-443-4000

E-mail address of person responsible for the SDS : HazCom@celanese.com

Emergency telephone number : DOMESTIC NORTH AMERICA: 800-424-9300
INTERNATIONAL, CALL +1 703-527-3887 (collect calls accepted)

Recommended use of the chemical and restrictions on use

Recommended use : Polymer

Restrictions on use : For manufacturing and research use only

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Methyl acrylate	96-33-3	< 1

Actual concentration is withheld as a trade secret
Only components that require disclosure according to country regulations are listed.

SECTION 4. FIRST AID MEASURES

If inhaled	:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Get medical attention. Call a physician. If not breathing, give artificial respiration.
In case of skin contact	:	In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Cool skin rapidly with cold water after contact with molten material. Do not attempt to remove material from the skin. Obtain medical treatment for thermal burn.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
If swallowed	:	Not a probable route of exposure. However, in case of accidental ingestion, call a physician.
Most important symptoms and effects, both acute and delayed	:	None known.
Notes to physician	:	Treat symptomatically

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water Foam Dry chemical Carbon dioxide (CO2)
Specific hazards during firefighting	:	Combustible Large molten masses may ignite spontaneously in air. Water quenching is good practice.
Hazardous combustion products	:	Hazardous combustion products may include: (see also section 10) Carbon monoxide carbon dioxide
Further information	:	Evacuate personnel and keep upwind of fire. The solid polymer can only be burned with difficulty.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions : Do not discharge to streams, ponds, lakes or sewers.

Methods and materials for containment and cleaning up : Shovel or sweep up.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : When opening containers, avoid breathing vapours that may be emanating.
Open container only in well-ventilated area.
Do not breathe vapours or fumes that may be evolved during processing.
Before using, read the product bulletin.

Conditions for safe storage : Keep containers tightly closed in a cool, well-ventilated place.
Storage of multiple pallets in unventilated area may cause acrylate concentrations to exceed specified limits.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Methyl acrylate	96-33-3	TWA	2 ppm	ACGIH
		TWA	10 ppm 35 mg/m3	NIOSH REL
		TWA	10 ppm 35 mg/m3	OSHA Z-1
		TWA	10 ppm 35 mg/m3	OSHA P0

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

Engineering measures : When hot processing this material, use local and/or general exhaust ventilation to maintain the concentration of vapors and fumes below exposure limits.
See Bulletin "Proper Use of Local Exhaust Ventilation During Processing of Plastics".
Use sufficient ventilation to keep employee exposure below recommended limits.
Local exhaust ventilation is preferred.

Personal protective equipment

Respiratory protection : A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use.
Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.
Observe respirator use limitations specified by the manufacturer.

Consult the OSHA respiratory protection information located at 29CFR 1910.134.

Hand protection
Material : Protective gloves

Eye protection : Wear safety glasses with side shields.
Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material.

Skin and body protection : Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.
If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid form

Colour : clear

Odour : acrylic-like

Odour Threshold : 0.0048 - 20 ppm
Methyl acrylate

pH : Not applicable

Flash point : No data available

Relative density : > 1

Solubility(ies)
Water solubility : insoluble

Decomposition temperature : > 540 °F / 282 °C
Thermal decomposition of the resin accelerates above temperature listed.
Decomposition is a function of both processing temperature and time at that temperature.
Decomposition can occur below the recommended processing temperature limit.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable at normal ambient temperature and pressure.

Possibility of hazardous : Polymerization will not occur.

reactions		Stable at normal ambient temperature and pressure. Large molten masses may give off hazardous gases. Water quenching is good practice.
Conditions to avoid	:	Temperature > 282 °C Decomposes on heating. At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin accelerates. Decomposition can occur below the recommended processing temperature limit. Decomposition is a function of both processing temperature and time at that temperature.
Incompatible materials	:	Strong acids and Oxidizing agents
Hazardous decomposition products	:	Hazardous decomposition products may include: Alcohols Ketones Aldehydes Acrolein Esters Carboxylic acid Organic acids Acrylic acid Formaldehyde acetaldehydes Carbon dioxide (CO2) Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 200 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

Methyl acrylate:

Acute oral toxicity	:	LD50 (Rat): 768 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity	:	LC50 (Rat): 6.5 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403 Symptoms: respiratory tract irritation
Acute dermal toxicity	:	LD50 (Rat): 1,250 mg/kg

Skin corrosion/irritation

Not classified due to lack of data.

Components:

Methyl acrylate:

Species	:	Rabbit
Assessment	:	Irritating to skin.
Method	:	OECD Test Guideline 404
Result	:	Severe skin irritation

Serious eye damage/eye irritation

Not classified due to lack of data.

Components:

Methyl acrylate:

Species	:	Rabbit
Result	:	Irritation to eyes, reversing after 7 to 21 days
Assessment	:	Irritating to eyes.
Method	:	OECD Test Guideline 405

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Components:

Methyl acrylate:

Species	:	Mouse
Assessment	:	The product is a skin sensitiser, sub-category 1B.
Method	:	OECD Test Guideline 429
Result	:	Probability or evidence of low to moderate skin sensitisation rate in humans

Germ cell mutagenicity

Not classified due to lack of data.

Components:

Methyl acrylate:

Germ cell mutagenicity - Assessment	:	Animal testing did not show any mutagenic effects., Did not cause genetic damage in cultured bacterial cells., Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others.

Carcinogenicity

Not classified due to lack of data.

Components:

Methyl acrylate:

Carcinogenicity - Assessment	:	Not classifiable as a human carcinogen., Overall weight of evidence indicates that the substance is not carcinogenic.

IARC Group 2B: Possibly carcinogenic to humans
Methyl acrylate 96-33-3

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified due to lack of data.

Components:

Methyl acrylate:

Reproductive toxicity - Assessment	:	No toxicity to reproduction, Animal testing showed no reproductive toxicity., No effects on or via lactation Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

STOT - single exposure

Not classified due to lack of data.

Components:

Methyl acrylate:

Target Organs	:	Respiratory system
Assessment	:	The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

Not classified due to lack of data.

Components:

Methyl acrylate:

Assessment	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Methyl acrylate:

Species	:	Rat
Application Route	:	Inhalation
Test atmosphere	:	vapour
Exposure time	:	90 d
Method	:	OECD Test Guideline 413
Remarks	:	No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification.

Aspiration toxicity

Not classified due to lack of data.

Components:

Methyl acrylate:

The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

Further information

Product:

Remarks	:	No data is available on the product itself.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Methyl acrylate:

Toxicity to fish	:	LC50 (Cyprinodon variegatus (sheepshead minnow)): 1.1 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.6 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 3.55 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 EC10 (Desmodesmus subspicatus (green algae)): 10.5 mg/l Exposure time: 72 h Method: Directive 67/548/EEC, Annex V, C.3.
Toxicity to daphnia and other aquatic invertebrates	:	NOEC (Daphnia magna (Water flea)): 0.136 mg/l Exposure time: 21 d

(Chronic toxicity) Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Persistence and degradability

Components:

Methyl acrylate:

Biodegradability : Result: Biodegradable
Method: OECD Test Guideline 310

Bioaccumulative potential

Components:

Methyl acrylate:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 0.739 (77 °F / 25 °C)

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : There is no data available for this product.
Toxicity is expected to be low based on insolubility in water.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Preferred options for disposal are recycling, incineration with energy recovery, and landfill.
The high fuel value of this product makes incineration very desirable for material that cannot be recycled.
Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

UN/ID No.	:	UN 3335
Proper shipping name	:	Aviation regulated solid, n.o.s. (Methyl acrylate)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	956
Packing instruction (passenger aircraft)	:	956

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

Not regulated as a dangerous good

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

Methyl acrylate	96-33-3
Methanol	67-56-1
Distillates (petroleum), hydro- treated light	64742-47-8

New Jersey Right To Know

None known.

California Prop. 65

WARNING: This product can expose you to chemicals including Methyl acrylate, which is/are known to the State of California to cause cancer, and
Methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

TSCA list

In compliance with TSCA-active Inventory requirements for commercial purposes.

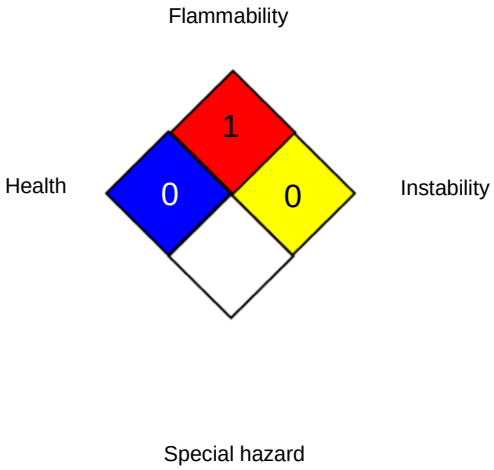
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

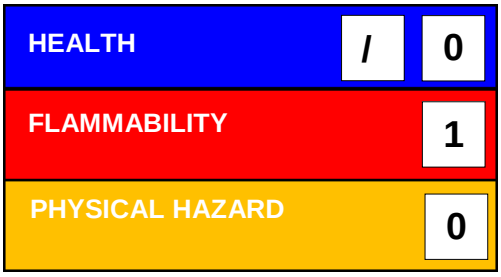
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide;

GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 07-10-2024

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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