

Safety Data Sheet

OSHA 1910.1200
Revision Date: 12/10/2015
Print Date: 05/20/2016
Version: 3.0



ACRYLITE® Acrylic Molding and Extrusion Compounds

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1. Product and Company Identification

1.1. Product identifier

Trade name : ACRYLITE® Acrylic Molding and Extrusion Compounds

Polymethylmethacrylate; PMMA

1.2. Recommended use of the chemical and restrictions on use

Recommended use(s): molding compound for injection molding and extrusion

Non-recommended use(s): None known.

1.3. Details of the supplier of the safety data sheet

Evonik CYRO LLC
299 Jefferson Road
Parsippany, NJ 07054-0677
USA

973-929-8000
973-929-8040 (fax)

1-973-929-8060 (Product Information Number)
1-800-424-9300 (24 Hour Emergency Number, CHEMTREC)

2. Hazards identification

2.1. Classification of the substance or mixture

This mixture is not classified according to US-GHS.

Classification according to Regulation 29CFR 1910.1200

This product is not considered to be a hazardous substance or mixture when classified in accordance with Regulation 29 CFR 1910.1200 (US GHS).

2.2. Label elements

This mixture is not classified according to US-GHS.

2.3. Other hazards

Dust explosions are generally to be expected with dust-forming organic products.

3. Composition/information on ingredients

3.1. Substances

3.2. Mixtures

Hazardous Ingredients

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Component	CAS-No.	Content	Hazard class / Hazard category / Hazard statement
acrylic copolymer	trade secret	> 95.0 %	not classified

4. First-aid measures

4.1. Description of first aid measures

General advice	No special measures are required.
Inhalation	No specific treatment is necessary since this material is not likely to be hazardous by inhalation.
Skin contact	After contact with melted product cool quickly with cold water. See a physician.
Eye contact	If mechanical irritation occurs flush eyes thoroughly with a large amount of water, consult a physician if irritation persists.
Ingestion	Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

No hazards known.

4.3. Indication of any immediate medical attention and special treatment needed

None known

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	foam, dry chemical, carbon dioxide, water spray
Unsuitable extinguishing media	full water jet

5.2. Specific hazards arising from the chemical

In case of fire partly flammable, partly harmful vapours, which are irritating to the eyes and respiratory system, may be formed on thermal decomposition.

5.3. Special protective equipment and precautions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Use water spray to cool containers exposed to fire.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation.

6.2. Environmental precautions

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Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Collect material and place in a disposal container. Obey relevant local, state, provincial and federal laws and regulations.

6.4. Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1. Precautions for safe handling

Safe handling advice

Avoid dust formation. During thermoplastic processing, vapours of the decomposition products referred to in section 10 are given off, which are technically unavoidable (Observe exposure threshold limit values). During thermal processing and/or machining local exhaust ventilation at processing machines is recommended.

Advice on protection against fire and explosion

Take precautionary measures against static discharges. In the event of fire, cool the endangered product with water.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in a dry place.

8. Exposure controls/personal protection

8.1. Control parameters

Exposure Limit Information

ACRYLIC COPOLYMER trade secret

Occupational Exposure Values

ACGIH TLV-TWA		
ACGIH TLV-STEL		
OSHA PEL-TWA		
OSHA PEL-STEL		
NIOSH REL-TWA		
NIOSH REL-STEL		

Remark(s):

not established
not established
not established
not established
not established
not established

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DUST, PARTICULATES)

Occupational Exposure Values		Remark(s):
ACGIH TLV-TWA		not established
ACGIH TLV-STEL		not established
OSHA PEL-TWA	50 mppcf	(total dust)
OSHA PEL-TWA	15 mppcf	(respirable dust)
OSHA PEL-STEL		not established
OEL-TWA (Alberta)		10 mg/m3 (total dust)
OEL-TWA (Alberta)		3 mg/m3 (respirable dust)
OEL-STEL (Alberta)		not established
OEL-TWA (British Columbia)		3 mg/m3 (respirable dust)
OEL-TWA (British Columbia)		10 mg/m3 (total dust)
OEL-STEL (British Columbia)		not established
OEL-TWA (Ontario)		10 mg/m3 (inhalable)
OEL-TWA (Ontario)		3 mg/m3 (respirable)
OEL-TWA (Quebec)		10 mg/m3 (total dust)
OEL-STEL (Quebec)		not established
OEL-TWA (Mexico)		10 mg/m3 (total dust)
OEL-STEL (Mexico)		not established

8.2. Exposure controls

Engineering controls

If use operations generate dust, use adequate ventilation.

8.3. Personal protective equipment

Protective measures	A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.
Hygiene measures	Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.
Respiratory protection	A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.
Hand protection	protective gloves against mechanical risks according to EN 388
General information	Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has to be selected.
Eye protection	Use safety glasses (ANSI Z87.1 or approved equivalent).

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Relative density	no data available
Bulk density	no data available
Relative vapour density (related to air)	not applicable
Solubility in water	insoluble
Solubility (quantitative)	no data available
Solubility (qualitative)	in e.g. esters, ketones and chlorinated hydrocarbons: readily soluble
pH	not applicable
n-Octanol/water partition coefficient	not applicable
Viscosity (dynamic)	not applicable
Viscosity (kinematic)	not applicable

9.2. Other information

Dust explosions are generally to be expected with dust-forming organic products.

10. Stability and reactivity

10.1. Reactivity

see section 10.2.

10.2. Chemical stability

This product is stable under normal storage conditions. No decomposition if stored and applied as directed. Depolymerization begins at 250 °C / 482 °F.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

High temperature.

10.5. Incompatible materials

No known incompatibility with other materials.

10.6. Hazardous decomposition products

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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Colour	colourless or coloured
Form	Pellets
Odor	odourless
Odour Threshold	no data available
physical state	solid
Melting point/freezing point	Softening Temperature ca. 108 °C 226 °F
Boiling point/range	not applicable
Flash point	> 250 °C (ASTM D 1929-68) > 482 °F (ASTM D 1929-68)
Evaporation rate	not applicable
Ignition temperature	no data available
Autoignition temperature	> 400 °C > 752 °F
Decomposition temperature	This product is stable under normal storage conditions. No decomposition if stored and applied as directed. Depolymerization begins at 250 °C / 482 °F.
Impact sensitivity	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Flammability (solid, gas)	no data available
Vapour pressure	not applicable
Density	ca. 1.19 g/cm ³ at 20 °C / 68 °F

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In case of thermal decomposition, combustible vapours are formed, which are irritating to eyes and respiratory system, mainly consisting of: methyl methacrylate

11. Toxicological information

11.1. Information on toxicological effects

toxicokinetics, metabolism and distribution	The substance is practically not bioavailable (structure-activity-relationships) (analogy)
Acute Oral Toxicity	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Caustic burning / irritation of skin	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Serious eye damage/eye irritation	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Respiratory/skin sensitization	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Aspiration hazard	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Mutagenicity assessment	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Carcinogenicity	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Reprotoxicity / teratogenicity	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

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CMR assessment	CMR: no no specific test data available (structure-activity-relationships) (analogy)
Specific Target Organ Toxicity - Single exposure	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Specific Target Organ Toxicity - Repeated exposure	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
General information	The product has not been tested toxicologically. When handled and used as directed the product will not cause hazardous effects to health according to studies on similar products and practical experience. The fine particles contained in the product may cause mechanical irritations of the skin, eyes and mucous membranes. Avoid skin and eye contact and inhalation of product dust/aerosols.

12. Ecological information

12.1. Toxicity

Hazardous to the aquatic environment	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
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12.2. Persistence and degradability

Persistence and degradability	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
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12.3. Bioaccumulative potential

Bioaccumulation	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
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12.4. Mobility in soil

Mobility	no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment PBT: no
vPvB: no

12.6. Other adverse effects

General Information The product has not been tested ecotoxicologically. On the basis of the products consistency as well as its low water solubility a bioavailability is unlikely. Studies on products with similar composition confirm this assumption. Prevent substance from entering soil, natural bodies of water and sewer systems.

13. Disposal considerations

13.1. Waste treatment methods

Product Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method. CYRO encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste.

Uncleaned packaging Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling.

14. Transport information

US DOT Hazard Classification

Not subject to the regulations on dangerous goods.

Canadian TDG Classification

Not subject to the regulations on dangerous goods.

Shipment by sea IMDG/GGVSee

Not dangerous according to transport regulations.

Air transport ICAO/IATA

Not dangerous according to transport regulations.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

INVENTORY INFORMATION

REACH (EU)	preregistered, registered or exempted
TSCA (USA)	listed or exempted
DSL (CDN)	listed or exempted

US FEDERAL REGULATORY INFORMATION

Component / CASRN	TPQ [lbs]	CERCLARQ [lbs] (40CFR302.4)	SARA 302 List of EHS	SARA 313 (40CFR372)	TSCA 12b
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NONE

COMPONENT CLASSIFICATION UNDER CLEAN AIR ACT SECTION 112

Component / CASRN	Weight %	HAP	EHAP
NONE			

PRODUCT CLASSIFICATION UNDER SECTION 311/312 OF SARA (40CFR370)

NONE

US STATE REGULATORY INFORMATION

Component / CASRN	New Jersey RTK	Pennsylvania RTK	Massachusetts RTK	California Proposition 65 Cancer	California Proposition 65 Reproductive
acrylic copolymer / trade secret	NO	NO	NO	NO	NO

This product contains (a) chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

CANADIAN REGULATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation and the MSDS contains all information required by the Controlled Products Regulations.

This is a non-controlled product.

WHMIS:NO

Component / CASRN	NPRI
NONE	

16. Other information

	Health	Flammability	Physical Hazard
HMIS-Ratings	0	1	0
NFPA-Ratings	0	1	0

HMIS Hazard Ratings

4 = severe
3 = serious
2 = moderate
1 = slight
0 = minimal
N = no rating for powders
* = chronic health hazard

NFPA Hazard Ratings

4 = extreme
3 = high
2 = moderate
1 = slight
0 = insignificant
N = no rating for powders

Other information none

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References	relevant manuals and publications own examinations own toxicological and ecotoxicological studies toxicological and ecotoxicological studies of other manufacturers SIAR OECD-SIDS RTK public files
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Places marked by || have been amended from the last version.

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Legend

ACC	American Chemistry Council
ACGIH	American Conference of Governmental Industrial Hygienists
ACS	Advisory Committee on Sustainability
ADI	Acceptable Daily Intake
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand
c.c.	closed cup
CAO	Cargo Aircraft Only
Carc	Carcinogen
CAS	Chemical Abstract Services
CDN	Canada
CEPA	Canadian Environmental Protection Act
CERCLA	Comprehensive Environmental Response – Compensation and Liability Act
CFR	Code of Federal Regulations
CMR	carcinogenic-mutagenic-toxic for reproduction
COD	Chemical oxygen demand
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
DOT	Department of Transportation
EC50	half maximal effective concentration
EPA	Environmental Protection Agency
ErC50	Reduction of Growth Rate
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
HCS	Hazard Communication Standard
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO-TI	International Civil Aviation Organization- Technical Instructions
ICCA	International Council of Chemical Association
ID	Identification number
IMDG	International Maritime Dangerous Goods

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IUPAC	International Union of Pure and Applied Chemistry
ISO	International Organization For Standardization
LC50	50 % Lethal Concentration
LD50	50 % Lethal Dose
L(E)C50	LC50 or EC50
LOAEL	Lowest observed adverse effect level
LOEL	Lowest observed effect level
MARPOL	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
RQ	Reportable Quantity
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
UN	United Nations
vPvB	very persistent, very bioaccumulative
voc	volatile organic compounds
WHMIS	Workplace Hazardous Materials Information System
WHO	World Health Organization