Safety Data Sheet according to UN-GHS

1. Identification

Product identifier: **PLEXIGLAS® - Molding Compound**

Chemical name: acrylic polymer

Other means of identification

Recommended use: moulding mixture

Recommended restrictions: None known.

Manufacturer/Importer/Distributor Information

Company Name	:	Röhm GmbH Product Stewardship Deutsche-Telekom-Allee 9 64295 Darmstadt
Telephone	:	+49 6151 863 7542
E-mail	:	sds-info@roehm.com

Emergency telephone number:

24-Hour Health Emergency	:	+49 6241 402 5280 (24h)

2. Hazard(s) identification

Classification according to GHS
Not classified

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements Not applicable

Other hazards: Dust explosions are generally to be expected with dust-forming organic products. Danger of slipping due to leaking or spilt product. Take precautionary measures against static discharges. Dust may form explosive mixture in air. Take precautionary measures against static discharges.

3. Composition/information on ingredients

Mixtures

Composition Comments: No hazardous ingredients.

Composition Comments: acrylic polymer

4. First-aid measures

Description of first aid measures

General information: No special precautions. In the event of burns caused by hot or molten material the usual first-aid measures have to be applied.

Inhalation: No specific treatment is necessary since this material is not likely to be hazardous by inhalation.

Skin Contact: Cool skin rapidly with cold water after contact with molten material. If symptoms persist, consult a physician for treatment.

Eye contact: If mechanical irritation occurs flush eyes thoroughly with a large amount of water, consult a physician if irritation persists.

Ingestion: Do NOT induce vomiting. Call a physician immediately.

Personal Protection for First-aid Responders: No data available.

Most important symptoms and effects, both acute and delayed

Symptoms: No hazards known.

Hazards: No known chronic or acute health risks.

Indication of immediate medical attention and special treatment needed

Treatment: This substance does not have any noteworthy noxious potential. Damage to health is thus not expected.

5. Fire-fighting measures

General Fire Hazards: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, foam, CO2, dry powder.

Unsuitable extinguishing media: High volume water jet

Special hazards arising from the substance or mixture:	May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:	Dust can form an explosive mixture in air. Keep away from heat and sources of ignition.
Special protective equipment for fire-fighters:	In the case of respirable dust and/or fumes, use self-contained breathing apparatus.Wear suitable protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Wear personal protective equipment; see section 8. Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Keep away sources of ignition. Assure sufficient ventilation. Danger of slipping after spill or leakage.
Accidental release measures:	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid release to the environment. Collect and dispose of spillage as indicated in section 13 of the SDS.
For emergency responders:	No special requirements.
Methods and material for containment and cleaning up:	Use mechanical handling equipment. To be disposed of in compliance with existing regulations.
Environmental Precautions:	Prevent material from entering drains and/or water ways.

7. Handling and storage

Handling

Technical measures:	Normal measures for preventive fire protection. Take precautionary measures against static discharges.
Local/Total ventilation:	Dust can form an explosive mixture in air. If the product is thermally treated, provide for a vapour exhaust device.
Safe handling advice:	Avoid dust formation. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.In case of fire cool endangered containers with water. Keep away from heat and sources of ignition.
Contact avoidance measures:	Wear personal protective equipment; see section 8.

Storage

Safe storage conditions:	Do not allow accumulation of dust.Observe prohibition against storing together!Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

	Store in the original receptable, keeping this tightly sealed, under cool and dry conditions. Keep away from direct sunlight. Take precautionary measures against static discharge.
Safe packaging materials:	Suitable materials: No special packaging or labelling requirements.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Observe national threshold limit values.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls	For monitoring procedures refer for instance to "Empfohlene Analysenverfahren für Arbeitsplatzmessungen", Schriftenreihe der Bundesanstalt für Arbeitsschutz and "NIOSH Manual of Analytical Methods", National Institute for Occupational Safety and Health

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

General information:	No data available.
Eye/face protection:	Safety glasses
Hand Protection:	Material: protective gloves against mechanical risks according to EN 388 Additional Information: The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials., The suitability for a specific workplace should be discussed with the producers of the protective gloves., Selection of protective gloves to meet the requirements of specific workplaces., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature)., Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Other:	suitable protective clothing
Respiratory Protection:	respiratory protection in case of dust formation short term: filter appliance, filter P1
Hygiene measures:	General industrial hygiene practice. Cleanse and apply cream to skin after work.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	solid
Form:	Pellets granular
Color:	Various, depending on coloration
Odor:	Odorless
Odor Threshold:	Not applicable
Melting Point:	96 - 110 °C/205 - 230 °F Method: Softening Temperature
Boiling Point:	Not applicable
Flammability:	This product has not been classified as flammable.

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	Not applicable
Explosive limit - lower:	Not applicable
Flash Point:	Not applicable
Auto-ignition temperature:	No data available.
Decomposition Temperature:	No decomposition if stored and applied as directed. Depolymerization begins at 250 °C
pH:	Not applicable

Viscosity

Dynamic viscosity:	Not applicable
Kinematic viscosity:	Not applicable
Flow Time:	Not applicable

Solubility(ies)

Solubility in Water:	Insoluble
Solubility (other):	in e.g. esters, ketones and chlorinated hydrocarbons: readily soluble
Partition coefficient (n-octanol/water):	Not applicable
Vapor pressure:	Not applicable
Relative density:	Not applicable
Density:	1,16 - 1,19 g/cm3
Bulk density:	700 kg/m3
Vapor density (air=1):	Not applicable

Particle characteristics

Particle Size:	3 mm
Particle Size Distribution:	No data available.
Specific surface area:	No data available.
Surface charge/Zeta potential:	No data available.
Shape:	Shape: Cylindrical granules
Crystallinity:	Crystallinity: amorphous

Surface treatment: Surface treatment /Coatings: No

Other information

Self-ignition: Not applicable

10. Stability and reactivity

Reactivity: see section "Possibility of hazardous reactions"

Chemical Stability: No decomposition if stored and applied as directed. Depolymerization begins at 250 °C

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: High temperature.

Incompatible Materials: No known incompatibility with other materials.

Hazardous Decomposition Products: 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

General information: The substance is practically not bioavailable (structure-activity-relationships) (analogy)

Information on likely routes of exposure

Inhalation: Relevant route of exposure. Information on effects are given below.

Skin Contact: Relevant route of exposure. Information on effects are given below.

Eye contact: Relevant route of exposure. Information on effects are given below.

Ingestion: If handled correctly, not a relevant route of exposure. Information on effects are given below.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No specific symptoms noted.

Skin Contact: No specific symptoms noted.

Eye contact: No specific symptoms noted.

Ingestion: If handled correctly, not a relevant route of exposure. Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified, no specific test data available, no evidence for hazardous properties, (structure-activity-relationships), (analogy)

Dermal

Product: Not classified, no specific test data available, no evidence for hazardous

properties, (structure-activity-relationships), (analogy)

Inhalation
Product: Not classified, no specific test data available, no evidence for hazardous properties, (structure-activity-relationships), (analogy)

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: no specific test data available, no evidence for hazardous properties, (structure-activity-relationships), (analogy)

Serious Eye Damage/Eye Irritation
Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Respiratory or Skin Sensitization
Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Carcinogenicity
Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Germ Cell Mutagenicity
no specific test data available, no evidence for hazardous properties, (structure-activity-relationships), (analogy)

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Specific Target Organ Toxicity - Single Exposure
Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Specific Target Organ Toxicity - Repeated Exposure
Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Aspiration Hazard
Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Information on health hazards

Other hazards

Product: 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.
Carefully avoid skin and eye contact and inhalation of product dust/aerosols.

12. Ecological information

Ecotoxicity:

Toxicity to Aquatic Plants

Product: No test results available. no evidence for hazardous properties (structure-activity-relationships) (analogy)

Toxicity to microorganisms

Product: No indications of critical properties in analogy to similar products or on the basis of structure-activity relationships.

Acute hazards to the aquatic environment:

Fish

Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Aquatic Invertebrates

Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Chronic hazards to the aquatic environment:

Fish

Product: No data on possible environmental effects have been found.

Aquatic Invertebrates

Product: No test results available. No indications of critical properties in analogy to similar products or on the basis of structure-activity relationships.

Persistence and Degradability

Biodegradation

Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Partition Coefficient n-octanol / water (log Kow)

Product: , Not applicable

Mobility in soil:

Product: no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)

Results of PBT and vPvB assessment:

Product: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects:

Other hazards

Product: No ecotoxicological data is available for this product. 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

General information: Dispose of waste and residues in accordance with local authority requirements.

Disposal methods: Review all local, state and federal regulations concerning health and pollution for appropriate disposal procedures. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

Contaminated Packaging: Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Uncontaminated packaging may be recycled. Packaging that cannot be cleaned must be disposed of like the substance.

14. Transport information

International Regulations

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

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.

15. Regulatory information

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

16.Other information, including date of preparation or last revision

Version #: 2.1

Generation date: 14.10.2024

Date of first report version: 10.03.2019

Abbreviations and acronyms:

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

Source of information:

relevant manuals and publications
own examinations
own toxicological and ecotoxicological studies
toxicological and ecotoxicological studies of other manufacturers
SIAR
OECD-SIDS
RTK public files

Further Information:

No data available.

Disclaimer:

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