Safety Data Sheet

According to 1907/2006/EC, Article 31

Revision: 07/10/2023

- 1. Identification of the substance/mixture and of the company/undertaking
 - **Product Identifier** Mercox II Corrosion Casting Resin
 - Article Number 21245M, 21246M, 21247M, 21245M-Air, 21246M-Air, 21247M-Air Relevant identified uses of the substances or mixture and uses advised against.
 No further relevant information available.
 - Application of the substance/preparation: Corrosion casting resin for biological tissue.
 - Details of the supplier of the safety data sheet

Ladd Research

3 Ewing Place

Essex Junction, VT 05452 USA

sales@laddresearch.com

Tel: +1-(802) 658-4961

Emergency Tel: +1-703-741-5500 (Chemtrec)

- 2. Hazards identification
 - Classification of the substance or mixture
 - Classification according to Regulation (EC) No 1272/2008



GHS02 Flammable

Flam. Liq. 3 H226 Flammable liquid and vapor



GHS07 Irritant

Eye Irrit. 2A H319 Causes serious eye irritation

Skin Sens. 1B H317 May cause an allergic skin reaction

Label elements

Labelling according to Regulation (EC) No 1272/2008:

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms





GHS07

GHS08

Signal word: Danger **Hazard statements:**

H226 Flammable liquid and vapor.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P285 In case of inadequate ventilation, wear respiratory protection.

P301A IF SWALLOWED do not induce vomiting. Do not give anything to drink.

Obtain medical attention without delay.

P301D IF SWALLOWED, induce vomiting ONLY as directed by medical personnel.

P302+P352 IF ON SKIN, wash with plenty soap and water P305B IF IN EYES, separate eyelids with finger tips

P340 Remove victim to fresh air and keep at rest in a position comfortable for

breathing

P351 Rinse cautiously with water for several minutes

P361 Remove/take off immediately all contaminated clothing

P501 Dispose of contents/container to proper waste area in accordance with

institutional practices and local, state or federal regulations

3. Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

Component	EINECS	CAS	% in Product
2-(methoxycarbonyl)-1-propene	201-297-1	80-62-6	60-90
1,2-Ethanediyl 2-methyl-2-propenoate	202-617-2	97-90-5	5-20
Bis(2-ethylhexyl) phthalate	204-211-0	117-81-7	5-20
Proprietary non hazardous ingredient			1-10

4. First aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Remove patient to fresh air.

If breathing is difficult, contact emergency personnel.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap for at least 15 minutes and rinse thoroughly.

After eye contact:

Rinse opened eye for at least 15 minutes under running water. Then consult a doctor.

After swallowing:

Induce vomiting as directed by medical personnel.

Wash out mouth with water if person is conscious.

Call for a doctor immediately.

Information for doctor:

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. Firefighting measures

Extinguishing media

Suitable extinguishing agents:

Carbon dioxide, dry chemical, alcohol or polymer foam. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture. Vapor may travel considerable distance to source of ignition and flash back. May undergo auto-polymerization. Container explosion may occur under fire conditions.

Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty water.

Do not allow to enter sewers and surface or ground waters.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

Handling:

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about fire and explosion protection: Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Store at 4°C. Special end use(s): No further relevant information available.

8. Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

Ingredients with limit values that require monitoring at the workplace:

80-62-6 2-(methoxycarbonyl)-1-propene

WEL Short-term value: 410 mg/m³, 100 ppm

117-81-7 Bis(2-ethylhexyl) phthalate

WEL Short-term value: 10 mg/m³

Long-term value: 5 mg/m³

202-617-2 1,2-Ethanediyl 2-methyl-2-propenoate

Values not established

Additional information: The lists valid during the making were used as basis.

Exposure controls:

Personal protective equipment:

General protective and hygienic measures:

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product, the substance, the preparation. Due to missing tests no recommendation to the glove material can be given for the product, the preparation, the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection

Tightly sealed splash goggles and face shield

9. Physical and chemical properties

Information on basic physical and chemical properties

General information

Appearance:

Form: Fluid

Color: Clear (for #21247M)

Odor: Characteristic acrylic odor

Odor threshold:

pH value:

Not determined

Not determined

Change in condition

Melting point/Melting range: Undetermined

Boiling point/Boiling range: 214°F

Flash point: Not applicable **Flammability:** Not applicable

Ignition temperature:

Decomposition temperature: Not determined

Self-igniting: Product is not self-igniting

Danger of explosion: Product does not present an explosion hazard

Explosion limits:

Lower: Not determined Upper: Not determined

Vapor pressure at 20°C:

Density at 20°C:

Relative density:

Vapor density:

Not determined

Not determined

Not determined

Not determined

Solubility in/

Miscibility with water: Very slightly miscible

Partition coefficient: Not determined

Viscosity:

Dynamic: Not determined **Kinematic**: Not determined

Solvent content:

 Organic solvents:
 85.0 %

 Water:
 0.0 %

 VOC (EC):
 85.0 %

Other information: No further relevant information available

10. Stability and reactivity

Reactivity

Chemical stability – Unstable without stabilizer. Product has been stabilized.

Thermal decomposition / conditions to be avoided:

Hazardous polymerization may occur. Avoid use of oxidizers and reducing agents.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: Heat, ignition sources

Incompatible materials: Oxidizing and reducing agents

Hazardous decomposition products: Oxides of carbon. Acrid fumes.

11. **Toxicological information**

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:

80-62-6 -- 2-(methoxycarbonyl)-1-propene

Draize test, rabbit, eye: 150 mg

Inhalation, mouse: $LC50 = 18500 \text{ mg/m}^3/2H$ Inhalation, rat: $LC50 = 78000 \text{ mg/m}^3/4H$

Oral, mouse: LD50 = 3625 mg/kg Oral, rabbit: LD50 = 8700 mg/kg Oral, rat: LD50 = 7872 mg/kg Skin, rabbit: LD50 = >5 gm/kg

Carcinogenicity:

CAS# 80-62-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65

Epidemiology: No information available.

Teratogenicity: Embryo or Fetus: Death, inhalation-rat TCLo=109g/m3/54M.Specific Developmental Abnormalities: Musculoskeletal, inhalation-rat TCLo=109g/m3/17M.

Reproductive Effects: Fertility: Post-implantation mortality, inhalation-rat

TCLo=4480mg/m3/2H.Materanl Effects: Menstrual cycle changes, inhalation-rat

TCLo=54mg/m3/24H.

Mutagenicity: Please refer to RTECS# OZ5075000 for specific information.

Neurotoxicity: No information available.

12. **Ecological information**

Toxicity

Aquatic toxicity: No further relevant information available

Persistence and degradability: No further relevant information available

Behavior in environmental systems:

Bioaccumulative potential: No further relevant information available

Mobility in soil: No further relevant information available **Ecotoxical effects:** No further relevant information available

13. **Disposal considerations**

Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. **Transport information**

UN-Number

ADR, IMDG, IATA UN1247

UN proper shipping name

ADR, IMDG, IATA UN1247, Methyl methacrylate monomer solution, stabilized

Transport hazard class(es)

ADR, IMDG, IATA

Class 3 Flammable liquid

Packing group

ADR, IMDG, IATA

Transport in bulk according

to Annex II of MARPOL 73/78

and the IBC Code: Not applicable

Transport/Additional information:

ADR

Limited quantities (LQ) 1L

UN "Model Regulation": UN1247, Methyl methacrylate monomer solution, stabilized,

3, II

15. **Regulatory information**

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. **Other Information**

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact

sales@laddresearch.com Tel: +1-802-658-4961

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the international Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals **EINECS:** European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent