MATERIAL SAFETY DATA SHEET

MSDS1100 - Revision date: 02/15/2015

1. Product and Company Identification

Identity: **Plast-aid® Liquid**

"Plast-aid" is a registered trademark of Plast-aid Corporation.

Manufacturer/Supplier: Plast-aid Corporation
P.O. Box 2156
Estes Park, Colorado 80517 USA

Telephone Number: (970) 577-1000

2. Composition, Information on Ingredients

Components	Weight%
METHYL METHACRYLATE – INHIBITED (CAS 80-62-6)	>95%

3. Hazards Identification

Emergency Overview:

Hazard Summary: Flammable liquid. Irritant by inhalation, in contact with skin and eye and if swallowed. May cause sensitization by skin contact. Hazardous polymerization may occur in large sealed containers. Colorless liquid with acrid, penetrating odor. Keep away from ignition source. Use adequate ventilation to keep below exposure limit.

Potential Health Effects:

EYE: Liquid and vapors can cause moderate irritation (tears, blurred vision and redness).

SKIN: May cause skin irritation, including redness, itching, and pain. Can cause skin sensitization.

INGESTION: Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

INHALATION: High concentration is irritant to the respiratory tract and may cause dizziness, head ache and anesthetic effects.

CHRONIC INFORMATION: Prolonged and/or repeated overexposure may lead to kidney, lung, liver, and heart damage. Repeated skin exposure may cause tingling sensation of the skin. No adverse birth defects, cancer, or reproductive effects anticipated.

AGGRAVATION OF PRE-EXISTING CONDITIONS: Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

4. First Aid Measures

First Aid:

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention if ill effects occur.

SKIN CONTACT: Wash skin thoroughly with soap and water after contact. If redness or irritation develops avoid contact. Obtain medical attention if ill effects occur.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Obtain medical attention if ill effects occur.

INGESTION: Do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Obtain medical attention if ill effects occur.

5. Fire Fighting Measures

Flammable Properties:
Flash Point: 11.5 deg. C (52.7 deg. F)
Auto ignition temperature: 421 deg. C (790 deg. F)
Flammable limits in air, % by volume: lower limit: 2.1%; upper limit: 12.5%
Flammable Liquid.
Vapors are heavier than air and may travel to ignition sources and flash back.

Extinguishing Media: Foam, Dry Chemical, CO2, and Water.

6. Accidental Release Measures

Evacuate personnel. Thoroughly ventilate area. Remove any source of ignition. Prevent material from entering sewers or waterways. Soak up with absorbent non-combustible material.

Spills in excess of 1000 lbs must be reported to National Response Center (1-800-424-8802) and to appropriate state and local emergency response organizations.

7. Handling and Storage

Do not breathe vapor or mist. Use adequate ventilation to keep below exposure limits. Do not get in eyes, on skin or ingest. Wash thoroughly after handling. Keep vapor and liquid away from heat, sparks, and flames. Tightly close container after each use. Protect against physical damage.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
PEL (OSHA) : 100 ppm, 410 mg/m3, 8 hr. TWA
TLV (ACGIA) : 100 ppm, 410 mg.m3, 8 hr. TWA
Plast-aid Corp : 50 ppm, 205 mg/m3, 8 hr. TWA; 100 ppm, 410 mg/m3, 15 min. STEL

(Note: Odor threshold is <1 ppm.)
Keep container tightly closed. Keep area orderly. Use adequate ventilation to keep below exposure limits. Use safety glasses and protective clothing where exposure warrants. Wash thoroughly after handling.

9. Physical and Chemical Properties

Form	: Mobile liquid
Color	: Clear, colorless
Odor	: Characteristic strong and acrid odor
Odor Threshold	: 0.5 – 1 ppm
Boiling Point	: 100.5 deg. C at 760 mm.Hg
Melting Point	: -48 deg. C
Vapor Pressure	: 28 mm/Hg at 20 deg. C
Density	: 0.949 g/ml at 15.5 deg. C
Solubility in water	: 1.6 WT% at 20 deg. C
Vapor Density (air=1)	: 3.5

10. Stability and Reactivity

Stability: Stable at room temperature. Polymerization may be caused by elevated temperature, oxidizers, peroxides, or sunlight.

Incompatibility with Other Materials: Incompatible with oxidizing and reducing agents. Material is a strong solvent and can soften paints, plastics and rubber.

Decomposition: Decomposes with heat. Hazardous gases/vapors produced are carbon monoxide, carbon dioxide and smoke.

11. Toxicological Information

Animal data:

Inhalation 4 hr LC50:	7093 ppm in rats (Very low toxicity by inhalation)
Dermal LD50:	> 35,500 mg/kg in rabbits (Very low toxicity by contact)
Oral LD 50:	7900 mg/kg in rats (very low toxicity by ingestion)

Inhalation: Irritating to respiratory system. High atmospheric concentrations may lead to irritation of the respiratory tract, dizziness, headache and anesthetic effects.

Skin Contact: May cause sensitization by skin contact. Irritating to skin. Repeated and/or prolonged contact may cause dermatitis.

Eye Contact: Irritating to eyes. High vapor concentrations will cause irritation.
Ingestion: Low oral toxicity but ingestion may cause irritation of the gastrointestinal tract.

Long Term Exposure: Repeated exposure to high levels produces adverse effects on the heart, lungs, liver and kidneys. Repeated exposure of animals by inhalation to levels at or above the occupational exposure level produces adverse effects on the nasal epithelium (levels of 100 and 400 ppm). There is no reason to believe that methyl methacrylate represents a carcinogenic or mutagenic hazard to man based upon evidence from well conducted animal studies, relevant mutagenicity studies and adequate epidemiological studies in relevant cohorts. Recent studies in

animals have show that high exposures do not produce embryo or feototoxic nor tetratogenic effects in the presence of maternal toxicity. None of these effects are likely to occur in humans provided exposure is maintained at or below the occupational exposure limit.

12. Ecological Information

Environmental Fate: When released into the soil, this material may biodegrade to a moderate extent. When released into the water, this material may biodegrade to a moderate extent. When released into the air, this material is expected to be readily degraded by reaction with photo chemically produced hydroxyl radicals. Material has low potential for bioaccumulation.

Toxicity: Low toxicity to fish. LC50 (fish): Typically > 100 mg/L. LC 50 (fathead minnow) (96 Hr.) (static) 130 mg. /L; Toxicity to aquatic invertebrates. EC 50 (Daphnia Magna) (48 Hr.) 69 mg./L; Low toxicity to algae. EC50 (Selenastrum Capricornutum) (96 hr.) 170 mg./L.

Effect on Effluent Treatment: Material is substantially removed in biological treatment processes.

13. Disposal Considerations

Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transportation Information

Shipping Information: 49 CFR 171-177

Proper Shipping Name	: Methyl Methacrylate Monomer, Inhibited
I.D. No. (UN/NA)	: UN1247
Hazard Class	: 3 (Flammable Liquid)
Packing Group	: II

Within the United States, this material is eligible to be classified and shipped as a *limited quantity* (inner packing not over 1.0 L (0.3 gal)) under 49 CFR 173.150 and further reclassed as an ORM-D under 49 CFR 173.144 and renamed with the proper shipping name “Consumer Commodity.” This material can also be shipped as a *small quantity* (inner packing not over 30 ml (1.0 oz)) under 49 CFR 173.4. Consult the commercial carrier for additional information.

The US Postal Service prohibits the mailing of all flammable materials via air transportation. The US Postal Service allows this material to be mailed domestically (not internationally) via surface transportation when classified as an ORM-D material and/or under the *small quantity* classification of 49 CFR 173.4. (See US Postal Service, Publication 52, “Hazardous, Restricted, and Perishable Mail”, chapter 3)

15. Regulatory Information

U.S. Federal Regulations

TSCA Inventory Status	: Reported/Included
Superfund reportable discharge	: 1000 lbs
Transportation	: 49 CFR 171-177

TITLE III Hazard Classifications; Sections 311,312

Acute	: Yes
Chronic	: No
Fire	: Yes
Reactivity	: Yes
Pressure	: No

16. Other Information

NFPA, NPCA-HMIS Rating

Health	: 2
Flammability	: 3
Reactivity	: 2

Medical use: Do not use in medical applications involving implantation in the human body.

Disclaimer: The information herein is given in good faith but no warranty, expressed or implied, is made. Plast-aid Corporation assumes no responsibility for personal injury or property damage that may arise from use of this material. Vendees or users assume all risks associated with the use of this material.