Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

Product Name: MA 440 Adhesive
Supplier: CSNRI | 621 Lockhaven Drive. Houston, TX 77073 | +1 281.590.8491
Emergency Phone Number: 800.424.9300 (CHEMTREC)
+1 703.741.5970 (Outside the US)
Product Description: Adhesive
Product Use: Intended to repair pipes

Section 2. Hazards Identification

Classification of the substance or mixture
Classification of the mixture in accordance with Regulation (EC) 1272/2008 CLP
Flammable Liquid – Category 2
Skin Irritation – Category 2
Skin Sensitization – Category 1
Specific Target Organ Toxicity, Single Exposure – Category 3

Hazard pictograms:

Signal word: Danger
Hazard statements:
H225 - Highly flammable liquid and vapor.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.

Precautionary statements:
P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 – Keep container tightly closed.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P332 + P313 – If skin irritation occurs: Get medical advice/attention.
P312 – Call a POISON CENTER/doctor if you feel unwell.
P403+P233 – Store in a well-ventilated place. Keep container tightly closed.

Other hazards: No information available.

Section 3. Composition/Information on Ingredients

Substances: N/A
Mixtures:

Common Name	CAS No.	Weight %
Methyl Methacrylate Monomer (MMA) Stabilized *	80-62-6	50 – 75

Note: All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.
** Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).*

Section 4. First Aid Measures

Description of first aid measures:

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion: If swallowed, do NOT induce vomiting. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed:

Eye contact: Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid
Skin contact: Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
Ingestion: May cause nausea, vomiting, diarrhea and mental sluggishness.
Chronic (long-term) effects: None known to humans.

Indication of any immediate medical attention and special treatment needed, if necessary: No information available.

Section 5. Fire Fighting Measures

Suitable extinguishing media: Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.
Unsuitable extinguishing media: Water spray or stream.
Special hazards arising from the mixture: Exposure hazard may include inhalation and dermal contact.
Combustion products: Oxides of carbon, oxides of nitrogen, hydrogen chloride. Hydrocarbons, acrid smoke and gases.
Special protective actions for fire-fighters: Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water. Self-contained breathing apparatus or full-face positive pressure air supply masks.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Keep away from heat, sparks

and open flame. Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment. Prevent contact with skin or eyes (see section 8)
Environmental precautions: Avoid runoff into storm sewers, ditches, and waterways.
Methods and material for containment and cleaning up: Contain spill with sand or other inert adsorbent or absorbent material. Use non-sparking tools. Transfer to a closable vessel (Metal or polyethylene [PE].
Other Precautions: Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

Section 7. Handling and Storage

Precautions for safe handling: Avoid breathing of vapor, avoid contact with eyes, skin and clothing. Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods. Do not eat, drink or smoke while handling.
Conditions for safe storage, including any incompatibilities: Store in ventilated room or shade and away from direct sunlight. Keep container tightly closed when not in use. Keep away from ignition sources and incompatible materials. Follow all precautionary information on container label and product bulletins.

Section 8. Exposure Controls/Personal Protection

Exposure limits:

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Methyl methacrylate Mon.	50	100 ppm	100 ppm	N/E

Appropriate engineering controls: Use local exhaust as needed. Maintain breathing zone airborne concentrations below exposure limits.

Individual protection measures:

Eye/Face Protection: Avoid contact with eyes, wear splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields.
Skin Protection Description: Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion. Use of solvent-resistant gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.
Respiratory Protection: Use in a well-ventilated room. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits are approached, use respiratory protection equipment.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State:	Viscous liquid
Color:	Off-white
Odor:	Strong solvent odor
Odor threshold:	0.75 ppm (MMA)
Melting Point:	No data available
Boiling Point:	>212.9 °F (100.5 °C) (Based on first boiling component: MMA)
Flammability:	Category 2
Lower Flammable/Explosive Limit:	1.6% Based on MMA

Upper Flammable/Explosive Limit:	12.5% Based on MMA
Flash Point:	52.7°F (11.5°C) Based on MMA
Solubility:	Slightly in water. Based on MMA
Vapor Pressure:	28 mm Hg @ 20 °C. Based on MMA
Vapor Density:	>3.0 (air = 1)
Specific Gravity:	0.9760 @ 23 °C
Percent Volatile:	Not determined
Evaporation Rate:	>1 (butyl acetate = 1)
Auto-ignition Temperature:	789.8 °F (421 °C) (MMA)
VOC Content:	<50 g/L mixed

Section 10. Stability and Reactivity

Reactivity: If the storage conditions are satisfied, does not produce dangerous reactions.
Chemical stability: Stable under standard normal conditions.
Possibility of hazardous reactions: None under normal processing.
Conditions to avoid: Keep away from direct sunlight, heat, sparks, open flame and other ignition sources.
Incompatible Materials: Reducing and oxidizing agents and metal contaminants
Hazardous decomposition products: None in normal use. Oxides of carbon, oxides of nitrogen, hydrogen chloride, hydrocarbons, acrid smoke and gases upon combustion.

Section 11. Toxicological Information

Information on the likely route of exposure:

Inhalation: May cause respiratory irritation.
Eye Contact: May cause eye irritation.
Skin Contact: May irritate the skin. May cause allergic skin reaction.
Ingestion: May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics:

Sensitization: No information available.
Mutagenic Effects: No information available.
Carcinogenic Effects: No information available.
Reproductive Toxicity: No information available.
Developmental Toxicity: No information available.
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.
Aspiration Hazard: No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure:

Short term exposure: No specific data available.
Long term exposure: No specific data available.

Numerical measures of toxicity:

Component	Dermal	Inhalation	Oral
Methyl Methacrylate Monomer	>35,000 mg/kg (rabbit)	7,093 ppm (rat) - 3hrs	7,900 mg/kg (rat)

Section 12. Ecological Information

Ecotoxicity: No ecotoxicity data was found for the product.

Persistence and degradability: No information available.
Bioaccumulative potential: No information available.
Mobility in soil: n normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of < 50 g/l
Other adverse effects: No information available.

Section 13. Disposal Considerations

Disposal Methods: Waste and empty containers must be handled and eliminated according to current, local/national legislation. According to DIRECTIVE 2008/98/EC the waste resulting is classified as H 3-B, according to Annex III. Local and national waste management legislation for the particular form of containment used must be complied with.

Section 14. Transport Information

ADR/IMDG/ICAO/IATA:

UN Number:	UN 1133
UN Proper shipping name:	Adhesive, containing a flammable liquid.
Transport hazard class:	3
Packing group:	II
Label required:	Class 3 Flammable Liquid
Environmental hazards:	No

Transport in bulk according to Annex II of MARPOL and the IBC Code: N/A

Section 15. Regulatory Information

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

US EPCRA (SARA Title III) Section 313 • Toxic Chemical: De minimis concentration
Methyl Methacrylate (CAS 80-62-6) 1.0%
US EPCRA (SARA Title III) Section 313 • Toxic Chemical: Listed substance
Methyl Methacrylate (CAS 80-62-6) Listed.
Toxic Substances Control Act (TSCA)
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4).
Methyl Methacrylate (CAS 80-62-6) Listed.
SARA 304 Emergency release notification Not Regulated
Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance Not listed
SARA 311/312 Hazardous chemical Yes

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) - List
Methyl Methacrylate
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not Regulated

Safe Drinking Water Act – Not Regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Methyl Methacrylate – Low priority

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Methyl Methacrylate (CAS 80-62-6)

Section 16. Other Information

HMIS ratings

Health: 2
Flammability: 3
Reactivity: 2

NFPA ratings

Health: 2
Flammability: 3
Reactivity: 2

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ELV: Exposure limit value.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.

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