

Section 1. Identification

Product Name: MA 441 Filler
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: Filler
Product Use: Intended to repair pipes

Section 2. Hazards Identification**Classification of the substance or mixture**

Flammable Liquid – Category 3
STOT SE – Category 3
Skin Irritation – Category 2
Skin Sensitization – Category 1

Hazard pictograms:

Signal word: Warning

Hazard statements:

H226 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.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P321 - Specific treatment (see on this label).
P370+P378 - In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.

Other hazards: No available information.

Section 3. Composition/Information on Ingredients

Substances: N/A

**Mixtures:**

Component	CAS #	Weight %
Crystalline silica	14808-60-7	30 - 60
Methyl Methacrylate Monomer	80-62-6	10 - 40
Wollastonite	13983-17-0	1 - 5
Calcium oxide	1305-78-8	0.1 - 1.0

Section 4. First Aid Measures**Description of first-aid measures:**

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek 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.

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.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, both acute and delayed: Irritant. Repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate. It may cause an allergic reaction, dermatitis, redness or inflammation of the skin.

Indication of immediate medical attention and special treatment needed, if necessary: In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Cover the affected area with a dry sterile bandage. Protect the affected area from pressure or friction.

Section 5. Fire Fighting Measures

Suitable extinguishing media: Use carbon dioxide (CO₂) or dry chemical.

Unsuitable extinguishing media: Water may cause frothing.

Special hazards arising from the substance or mixture: Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization. Fire can cause thick, black smoke. Carbon monoxide and carbon dioxide are dangerous products can be formed as a result of thermal decomposition. Exposure to combustion or decomposition products can be harmful to your health. Flammable vapors or gases may occur during a fire, depending on its magnitude.

Special protective actions for fire-fighters: Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. Follow the instructions given in the emergency or fire evacuation plan or plans if available. According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots. During extinction and depending on the magnitude and proximity to the fire, additional protective equipment such as chemical protection gloves, heat-reflecting suits or gas-tight suits may be required.



Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Eliminate possible ignition points and ventilate the area. No smoking. Avoid breathing fumes. For exposure control and individual protection measures, see section 8.

For emergency responders: It may be necessary to use protective suits, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

Environmental precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods and material for containment and cleaning up: Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue.

Other Precautions: Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

Section 7. Handling and Storage

Precautions for safe handling: Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.

Hygiene practices: Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use. Store the containers between 5 and 35° C. Keep away from oxidizing agents and from highly acidic or alkaline materials. Do not smoke. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

Section 8. Exposure Controls/Personal Protection

Control Parameters:

Exposure guidelines:

Component	Exposure Limits		
	ACGIH-TLV	OSHA	EU limits
Crystalline silica	0.025 mg/m ³ TLV-TWA (respirable fraction)	10 mg/m ³ [{"% SiO2} + 2]	Not applicable for content in a paste material, only applicable to the air fraction, not in this product.
Calcium oxide	2 mg/m ³ TLV-TWA	5 mg/m ³ PEL-TWA	3.5 mg/m ³ DNEL (workers) (Not applicable for content in a paste material, only applicable to the air fraction not in this product.)
Methyl Methacrylate Monomer*	50 ppm 100 ppm TLV-STEL 50 ppm TLV-TWA	100 ppm 100 ppm PEL-TWA	208 mg/m ³ DNEL (workers) Eight-hours ELV: 50 ppm Short-term ELV: 100 ppm

*More details in the table below:



Methyl Methacrylate Monomer				
Location	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
EU	50	-	100 (1)	-
Denmark	25	102	50	204
France	50	205	100	410
Germany	50	210	100 (1)	420 (1)
Remarks	(1) 15 minutes average value			

Appropriate engineering controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards e.g. international standard NFPA 654. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

Eye/Face Protection: According to the physical state of the product (paste) it is not expected to be necessary the use of mask or goggles, no splatters are expected. Do not touch eyes or face with hands when handling the material and use protective gloves.

Skin Protection Description: Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data. Use CE marking gloves category I, according to CEN Standards EN 374-1, EN 374-2, EN 420. Wear anti-static protective clothing, use CE marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements. Use CEN standards EN 340, EN 1149-1, EN 1149-2, EN 1149-3, EN 1149-5. Use anti-static safety footwear, CE marking category II (EN ISO 13287, EN ISO 20344 or EN ISO 20346. Use anti-static safety footwear, CE marking category II (EN ISO 13287, EN ISO 20344 or EN ISO 20346.

Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. If the recommended technical measures are observed, no individual protection equipment is necessary.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State:	Paste
Color:	Off-white
Odor:	Fragrant
Melting Point:	-54°F (-47.7°C)
Boiling Point:	213°F (100.5°C)
Lower Flammable/Explosive Limit:	1.7%
Upper Flammable/Explosive Limit:	12.5%
Flash Point:	50°F (10°C)
Flash Point Method:	Tag closed cup. (TCC)
Auto Ignition Temperature:	789°F
pH:	Not determined



Solubility:	Not determined
Vapor Pressure:	28 mm Hg @ 68°F
Vapor Density:	> 1 (air = 1)
Specific Gravity:	0.93-1.05
Percent Volatile:	Not determined
Evaporation Rate:	3 (butyl acetate = 1)
Molecular Formula:	Mixture
Molecular Weight:	Mixture
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.

Hazardous polymerization: Polymerization may occur under certain conditions.

Conditions to avoid: Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber. Static discharge. High temperatures.

Incompatible materials: Oxidizing agents (e.g., peroxides, nitrates), reducing agents, acids, bases, azo compounds, catalytic metals (e.g., copper, iron), halogens. Free radical initiators. Oxygen scavengers.

Hazardous decomposition products: Thermal decomposition can lead to release of dangerous products such as carbon monoxide and carbon dioxide.

Section 11. Toxicological Information

Acute toxicity: No specific data available.

Skin corrosion/irritation: May irritate the skin. Repeated or prolonged contact with the product can cause non-allergic contact dermatitis and absorption of the product through the skin.

Serious eye damage/irritation: Splatters in the eyes can cause irritation and reversible damage.

Respiratory or skin sensitization: May cause allergic skin reaction.

Germ cell mutagenicity: No specific data available.

Carcinogenicity: No specific data available.

Reproductive Toxicity: No specific data available.

Developmental Toxicity: No specific data available.

STOT - single exposure: No specific data available.

STOT - repeated exposure: No specific data available.

Aspiration Hazard: No specific data available.

Information on the likely route of exposure:

Inhalation: May cause respiratory irritation.

Eye Contact: May irritate the eyes.

Skin Contact: May irritate the skin.

Ingestion: May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics: No specific data 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	LD50	LC50	Oral	Inhalation
Calcium oxide:	2,000 mg/kg bw (rat)	(4 h) 6.04 mg/L air (rat)	–	–
Methyl Methacrylate Monomer:	5,000 mg/kg bw (rabbit)	(4 h) 29.8 mg/L air (rat)	Repeated Dose Toxicity: NOAEL (rat): 124.1 – 164 mg/kg bw/day	Repeated Dose Toxicity: NOAEC (rat): 104 – 1640 mg/m ³ air NOAEC (rat): 500 – 1000 ppm LOAEC (rat): 416 mg/m ³ air LOAEC (rat): 250 ppm
Wollastonite	No toxicity available data information. Not classified as hazardous.			

Section 12. Ecological Information

Toxicity: The product is not classified as hazardous for the environment.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available

Mobility in soil: No information available.

Results of PBT and vPvB assessment: No information available

Other adverse effects:

Hazard for Aquatic Organisms:

Freshwater	940 µg/L
Intermittent releases (freshwater)	940 µg/L
Marine water	940 µg/L
Sewage treatment plant (STP)	10 mg/L
Sediment (freshwater)	5.74 mg/kg sediment dw
Sediment (marine water)	No exposure of sediment expected

Hazard for Terrestrial Organism

Soil	1.47 mg/kg soil dw (1)
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Short-term toxicity to fish

LC50 (4 days) 79 mg/L

NOEC (4 days) 40 mg/L

Short-term toxicity to aquatic invertebrates

EC50 (48 h) 69 mg/L

NOEC (48 h) 48 mg/L

Long-term toxicity to aquatic invertebrates

NOEC (21 days) 37 mg/L

LOEC (21 days) 68 mg/L

EC50 (21 days) 49 mg/L

Toxicity to aquatic algae and cyanobacteria

EC50 (72 h) 110 mg/L

NOEC (72 h) 49 - 110 mg/L

Section 13. Disposal Considerations

Disposal Methods: Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation. Follow the provisions of Directive 2008/98/EC



regarding waste management. DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

Uncleaned packaging: Empty containers must be handled and eliminated according to current, local/national legislation.

Section 14. Transport Information

ADR/IMDG/ICAO/IATA:

UN Number: 1247
UN Proper shipping name: Methyl methacrylate monomer
Transport hazard class: 3
Packing group: II
Environmental hazards: Marine pollutant: No

Section 15. Regulatory Information

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

EU REGULATIONS

- Regulation (EC) 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), according to Annex II.
- Regulation (EC) 1272/2008 on the classification, labeling and packaging of substances and mixtures (CLP Regulation)
- Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.
- Directive (EC) 98/2008 on waste
- ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road Restrictions of occupation

Exposure limit values: GESTIS INTERNATIONAL LIMIT VALUES, by IFRA Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung.

Chemical safety assessment: No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16. Other Information

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 CEN: European Committee for Standardization.
 DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
 ELV: Exposure limit value.
 EC50: Half maximal effective concentration.



PPE: Personal protection equipment.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Code for Dangerous Goods.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
NOEC: No observed effect concentration.

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