

SAFETY DATA SHEET



Issue Date: October 17, 2017

Revision Date: June 25, 2018

Version: 2017.1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: DuraPatch mMa Resin

Other Means of Identification

SDS #: F5370A

Recommended Use: Methyl Methacrylate Resin

Restrictions on Use: No Data

Supplier of the Safety Data Sheet including Address:

ChemMasters Inc.
300 Edwards Street
Madison, OH 44057

Telephone Numbers

Company Phone Number

Phone: 800-486-7866, 440-428-2105

Fax: 440-428-7091

Emergency Telephone: ChemTrec 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Highly Flammable Liquid and vapor, causes serious eye damage, causes skin irritation, may cause respiratory irritation, may cause an allergic skin reaction, harmful if inhaled, swallowed or in contact with skin, harmful to aquatic life with long lasting effects

Target Organs: Eyes, Skin, Respiratory System

GHS Classification

Flammable Liquids Category 2

Acute Toxicity – Oral – Category 4

Acute Toxicity – Dermal – Category 4

Acute Toxicity – Inhalation – Category 4

Eye Damage/Irritation Category 1

Skin Corrosion/Irritation Category 2

Sensitization – Skin – Category 1B

Specific target organ toxicity – single exposure, Inhalation - Category 3, Respiratory system

Hazardous to the Aquatic Environment – Short Term (Acute) Hazard – Category 3

Hazardous to the Aquatic Environment – Long Term (Acute) Hazard – Category 3

Label Elements, including precautionary statements



Signal Word: Danger

Hazard Statements:

H225	Highly Flammable Liquid and Vapour
H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye irritation
H335	May cause respiratory irritation
H412	Harmful to aquatic life with long lasting effects

Precautionary Statement(s)

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed.
P240	Ground and bond the container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands and exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be worn out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P314	General Advice: Get medical advice/attention if you feel unwell.
P302+P352+P353	IF ON SKIN: Wash with plenty of soap & water.
P333+P313	If skin irritation or rash occurs: Get medical advice or attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313	If eye irritation persists: Get medical advice/attention.
P304+P340+P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P370+P378	In case of fire use, "alcohol resistant" foam, dry chemical, halon or carbon dioxide to extinguish.

Storage: P403+P235+P233 Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405 Store Locked Up

Disposal: P501 Dispose of contents/container in accordance with local/regional/national regulations.

Hazards not otherwise classified: None Known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component

Methyl Methacrylate	CAS# 80-62-6	50-75%
2-Ethylhexyl acrylate	CAS#: 103-11-7	15-40%
Butyl benzyl phthalate	CAS# 85-68-7	≤5%
Triethylene glycol dimethacrylate esters	CAS#: 109-16-0	≤5%
N,N-Dimethyl-p-toluidine	CAS#: 99-97-8	≤1%

Ingredients not listed on this safety data sheet are considered to be non-hazardous according to OSHA 1910.1200 or are not present above their cutoff levels. Where a range is displayed, the exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First Aid Measures

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Skin Contact: IF ON SKIN: Wash with plenty of soap & water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Alcohol-resistant foam, dry chemical, halon or carbon dioxide

Specific Hazards Arising from the Chemical: Closed containers may forcibly rupture under extreme heat Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

Hazardous Combustion Products: Carbon dioxides & Carbon monoxide

Protective Equipment and Precautions for Firefighters: Wear self-contained breathing apparatus and full protective gear for firefighting.

Further Information: Use water spray to cool unopened containers. See Section 7 for safe handling and storage

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains or waterways.

Methods and Material for Containment and Cleaning Up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond the container and receiving equipment. Take measures to prevent the buildup of electrostatic charge. Use non-sparking tools. Wash hands and skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry, cool and well ventilated place. Storage temperature should not exceed 30°C (86°F). Containers should be filled to approximately 90% as oxygen (air) is required for stabilization. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component Exposure Limits

Methyl Methacrylate, CAS# 80-62-6: ACGIH TLV-TWA 50 ppm, STEL 100 ppm

N,N-Dimethyl-p-toluidine, CAS#: 99-97-8: TWA 0.5 ppm USA Workplace Environmental Exposure Levels (WEEL)

Appropriate Engineering Controls

Local Ventilation: Recommended

General Ventilation: Recommended

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection:

Use proper protection – Safety Glasses as a minimum

Skin and Body Protection:

Wash at mealtime and end of shift. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.). Use chemical protective gloves as a minimum and wash skin promptly upon any skin contact.

Respiratory Protection:

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

General Hygiene Considerations:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before & after breaks and work day.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear

Color: Colorless

Odor: Ester-like

Odor threshold: No Data

<u>Property</u>	<u>Value</u>	<u>Remarks – Method</u>
Vapor Pressure	Not Available	
Vapor Density	Not Available	
Relative Density	Not Available	
pH:	Not Relevant	
Melting/Freezing Point	Not Relevant	
Solubility	Not Available	
Evaporation Rate	Not Available	
Flash Point	10 Degrees C (50 Degree F)	Abel Pensky Closed Cup
Flammability Limits	Lower Limit: 2.1% Upper Limit: 12.5%	
Flammability (Solid, gas)	Not Relevant	
Auto Ignition Temperature	Not Available	
Initial Boiling Point/Boiling Range	100.3 Degrees C	
Decomposition Temperature	Not Available	
Viscosity	Not Available	
Specific Gravity	0.94 at 25 Degrees C	7.84 Lbs./gal. +/- 0.1

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Possibility of Hazardous Reactions: Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. The product is supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

Conditions to Avoid: Heat, Flames and Sparks

Incompatible Materials: Keep away from reducing substances, and/or heavy metal ions, Mineral acids, oxidizing agents, peroxides and tertiary amines.

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions, Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Skin Contact, Eye Contact, Ingestion

Symptoms of Exposure:

Highly Flammable Liquid and vapor, Causes serious eye damage, Causes skin irritation, May cause respiratory irritation, May cause an allergic skin reaction, Harmful if inhaled, swallowed or in contact with skin. Harmful to aquatic life with long lasting effects

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Carcinogenicity:

No Carcinogenic substances as defined by IARC, NTP and/or OSHA.

Reproductive Toxicity:

No indications of reproductive toxicity.

Numerical Measures of Toxicity

Methyl Methacrylate: LD50 Oral Rat: >5,000 mg/kg; LC50 Inhalation Rat: 29.8 mg/l - 4 hrs.; LD50 Dermal Rabbit: >5,000 mg/kg (Irritation of skin: Non- Irritating – Slightly Irritating)

2-Ethylhexyl acrylate: LD50 Oral Mouse: 4,400 mg/kg; LD50 Dermal Rabbit: 7,496 mg/kg; Skin-Rabbit: Irritation; Eye-Rabbit: Severe eye irritation.

Butyl benzyl phthalate: LD50 Oral Rat: 20,400 mg/kg; LC50 Inhalation Rat: >6.7 mg/l - 4 hrs.; LD50 Dermal Rabbit: >10,000 mg/kg; Skin-Rabbit: Non-Irritating 24 hrs; Eye-Rabbit: Slight Irritation 24 hrs

12. ECOLOGICAL INFORMATION

Ecotoxicity: Material is expected to be harmful to aquatic organisms.

Toxicity to Fish:

Component Methyl Methacrylate: LC50: >79 mg/l Oncorhynchus mykiss, 24 hrs.; NOEC 9.4 mg/l

Component: Butyl benzyl phthalate: LC50: 1-10 mg/l Oncorhynchus mykiss, 96 hrs., Static

Toxicity to Daphnia (aquatic invertebrates):

Component Methyl Methacrylate: EC50: 69 mg/l 24 hrs.; NOEC Flow through, 21 days, 37 mg/l

Component: Butyl benzyl phthalate: EC50: 0.9-1.1 mg/l, 48 hrs., Static

Toxicity to algae:

Component Methyl Methacrylate: EC50: Selenastrum capricornutum, OECD 201, 72 hrs. >110 mg/l

Component: Butyl benzyl phthalate: EC50: Pseudokirchneriella subcapitata, 0.02-0.25 mg/l, 96 hrs.

Persistence and Degradability: No Data Available

Bioaccumulation: No Data Available

Mobility: No Data

Other Adverse Effects: No Data Available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes: Under RCRA 40 CFR 261 this material is a hazardous waste. Dispose of in accordance with all federal, state, and local regulations. If uncertain of local requirements, contact the proper environmental authorities for information on waste disposal in your area. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

D.O.T.:

UN1247, Methyl Methacrylate Monomer, Stabilized, 3, II

I.A.T.A.:

UN1247, Methyl Methacrylate Monomer, Stabilized, 3, II

I.M.D.G.:

UN1247, Methyl Methacrylate Monomer, Stabilized, 3, II

Marine Pollutant: No

15. REGULATORY INFORMATION

International Inventories

TSCA: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

US Federal Regulations

SARA 302: None

SARA 311/312 Hazard Categories: Acute: Yes, Fire: Yes, Chronic: Yes

SARA 313 Hazard Categories:

Component Name

Methyl Methacrylate, CAS# 80-62-6

CWA (Clean Water Act): This product may be subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

Supplemental State Compliance Information

California:



WARNING: This product can expose you to Butyl benzyl phthalate, CAS# 85-68-7, $\leq 5\%$, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

States Right To Know:

Ingredient

Methyl Methacrylate
2-Ethylhexyl acrylate
N,N-Dimethyl-p-toluidine

CAS Number

CAS# 80-62-6
CAS#: 103-11-7
CAS#: 99-97-8

State

MA, NJ, PA
MA, NJ, PA
PA, NJ

U.S. EPA Label Information: No Data

16. OTHER INFORMATION

HMIS Classification:

Health hazard: 2*
Flammability: 3
Physical Hazards: 2

NFPA Rating:

Health hazard: 2
Fire: 3
Reactivity Hazard: 2

Issuance Date: July 12, 2017

Revision Date: June 25, 2018

Revision Note: Revised and Updated

Date of Previous Version: June 4, 2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet