

# SAFETY DATA SHEET

## 1. IDENTIFICATION

TECHNOVIT LIQUID

For treatment and repair of livestock hooves.

Jorgensen Laboratories

Product Codes: 61-LA, 61-LB

1450 Van Buren Avenue

Loveland, Co. 80538

Date: March 20, 2015

Phone: (970) 669-2500 or (800) 525-5614 Fax: (970) 663-5042

Emergency Phone Number: U.S. and Canada (800) 535-5053

International: (352) 323-3500 (INFOTRAC)

## 2. HAZARD(S) IDENTIFICATION...



Flammable Liquid and Vapor Category 2



Respiratory or skin sensitization: Category 1

Skin Irritation: Category 2

Skin sensitization: Category 1

Specific target organ toxicity following single exposure:  
Category 3

Signal word:

Danger

Health Hazard:

Irritating to skin and respiratory system. Harmful by  
Inhalation and if swallowed.

Environmental

Hazard:

Toxic to aquatic organisms.

Hazard statements:

H225: Highly flammable liquid and vapour.

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 flame, hot surfaces-No  
Smoking.

P261: Avoid breathing vapours.

P280: Wear protective gloves/protective clothing/eye protection/  
Face protection.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P501: Dispose of contents/container to hazardous waste in  
Accordance with local, state or national legislation.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	Cas #	%
Methyl Methacrylate monomer	80-62-6	99
Methyl, N-Hydroxyethyl-P-Toluidine	2842-44-6	<1

### 4. FIRST AID MEASURES

#### Description of first aid measures

<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
<b>Skin Contact</b>	In case of contact, immediately wash skin with soap and water. Obtain medical attention if blistering occurs or redness persists. Wash contaminated clothing before reuse.
<b>Eye Contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
<b>Ingestion</b>	If swallowed, do not induce vomiting. Immediately give two glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

### 5. FIRE FIGHTING MEASURES

#### Extinguishing Media

Suitable Extinguishing Media	Foam, Dry Chemical, CO <sub>2</sub> , Water spray (by trained personnel).
Unsuitable Extinguishing Media	Do not use water jet.

#### Special hazards arising from the substance or mixture

Highly flammable liquid and vapors.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

Eliminate sources of ignition. Wear protective gloves and eye/face protection. Avoid breathing vapors. See Section 8.

#### Environmental precautions

Avoid release to the environment.

#### Methods and material for containment and cleaning up

Collect spillage. Do not adsorb onto sawdust or other combustible materials; use earth, sand or other inert material. Transfer to a lidded container for disposal or recovery. Use only non-sparking tools.

#### Reference to other sections

See Section 8, 13

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Do not eat, drink or smoke at the work place. Wash thoroughly after handling.

Avoid breathing vapors. Use only outdoors or in a well-ventilated areas. The vapor is heavier than air.

#### Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep away from heat, sparks, open flame, hot surfaces-No smoking. Protect from sunlight.

Storage Temperature                      Preferable not exceeding 77° F (25°)

Incompatible materials                      Polymerization catalysts, such as peroxy or azo compounds, strong acids, alkalis and oxidizing agents. Oxides and salts of transition metals. Organic Nitrogen containing compounds. Cyclohexanone/Cyclohexenol tautomer.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Appropriate engineering controls

Do not eat, drink or smoke at the work place. Keep container tightly closed. Observe label precautions.

Use ventilation that is adequate to keep exposure to airborne concentrations below exposure limits.

#### Individual protection measures, such as personal protective equipment (PPE)

Worker: Wear protective equipment to comply with good occupational hygiene practice.

Eye/face protection



Wear eye/face protection  
Safety spectacles/goggles.

#### Skin protection



Wear impervious clothing to prevent contact with product, such as gloves, apron, Nitrile rubber is better than PVC.

#### Respiratory protection



Wear suitable respiratory protective equipment if engineering controls are insufficient or not present and exposure to levels above the DNEL is likely. A suitable mask with filter type A may be appropriate.

#### Exposure limits

##### Methyl Methacrylate-Inhibited

PEL (OSHA)	:100ppm, 410 mg/m <sup>3</sup> , 8 Hr. TWA
TLV (ACGIH)	:100 ppm, 410 mg/m <sup>3</sup> , 8 Hr. TWA
ICI (recommended)	: 50ppm, 205 mg/m <sup>3</sup> , 15 min. STEL

## 9. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Clear/colorless
Odor	Characteristic strong and acrid
Odor Threshold (ppm)	0.5-1.0
pH (Value)	Not applicable
Melting Point	-48 C (-54 F)
Boiling Point	100.5 C (213 F) @ 760 mm Hg
Flash Point	10 C (Closed cup)
Vapor Pressure	28 mm Hg @ 20 C (68F)
Vapor Density	3.5 (Air=1)
Solubility (Water)	Slightly soluble 1.6 at 20 C (68 F)
Solubility (Other)	Miscible with most organic solvents
Partition Coefficient (n-Octanol/water)	1.38
Density	0.949 at 15.5 C (60 F)

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Unstable with heat.
<b>Incompatibility with other materials</b>	Incompatible with strong oxidizing agents and reducing agents. Material is a strong solvent and can soften paints and rubber.
<b>Decomposition</b>	Decomposes with heat. <b>Hazardous gases/vapors produced are carbon monoxide, carbon dioxide, acrid smoke, and irritating fumes.</b>
<b>Polymerization</b>	Polymerization can occur. Conditions leading to polymerization are excessive heat, and inadvertent addition of catalyst. Contamination of product may also cause polymerization.

## 11. TOXICOLOGICAL INFORMATION

### Animal Data

Inhalation 4 hour LD50:	7093 ppm in rats (very low toxicity by inhalation)
Skin absorption LD50:	>35,500 mg/Kg in rabbits (very low toxicity by contact)
Oral LD50:	7900mg/Kg in rats (very low toxicity by ingestion)

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 epidemiology studies in relevant cohorts.

Recent studies in animals have shown that high exposures do not produce embryo or fetotoxic nor teratogenic effects in the presence of maternal toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological information

#### ENVIRONMENTAL FATE AND DISTRIBUTION

Product has low potential for bioaccumulation. The product is predicted to have high mobility in soil.

#### PERSISTENCE AND DEGRADATION

Not readily biodegradable

Chemical Oxygen Demand (COD): 88% (28 days)

Inherent Biodegradation: Dissolved Organic Carbon Removal (DOC removal): > 95% (28 days)

#### AQUATIC TOXICITY

Low toxicity to fish.

LC50 (fish): Typically > 100 mg/L

96 hour LC50, fathead minnow (static): 130 mg/L

Harmful to aquatic invertebrates.

EC50 48 hr. (Daphnia Magna): 69 mg/L

Low toxicity to algae.

EC50 96 hr. (Selenastrum Capricornutum): 170 mg/L

#### EFFECT ON EFFLUENT TREATMENT

Product is substantially removed in biological treatment processes.

## 13. DISPOSAL CONSIDERATIONS

Avoid release to the environment.

#### Waste treatment methods

Dispose of contents/container to hazardous waste in accordance with local, state or national legislation.

## 14. TRANSPORTATION INFORMATION

#### Shipping Information

DOT shipping Description: Methyl Methacrylate Monomer, Inhibited, 3, UN1247, PGII

#### TMD Shipping Information

Proper shipping Name: Methyl Methacrylate Monomer

TMD Class: 3.2 (9.2)

I.D. No. (UN/NA): UN1274

TMD Packing Group: II

## 16. OTHER INFORMATION

Issue Date: March 30, 2015

Reason for revision: Updated to comply with Revised Hazard Communication Standard (HCS)

By Dale Peterson, Chemist

### Disclaimer

THIS MATERIAL SAFETY DATA SHEET IS PREPARED IN COMPLIANCE WITH FEDERAL REGULATIONS (29 CFR 1910.1200), THE COMMONWEALTH OF PENNSYLVANIA REGULATIONS (TITLE 34. CHAPTERS 301-323) AND CANADIAN WHMIS REGULATIONS, ANY APPLICABLE STATE AND LOCAL REGULATIONS SHOULD BE CONSULTED. THE ABOVE INFORMATION MAY BE BASED ON INFORMATION PROVIDED BY COMPONENT SUPPLIERS AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OF THESE DATA, THE RESULTS TO BE OBTAINED FROM THE USE OF THE MATERIAL, OR THE HAZARDS CONNECTED WITH SUCH USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATION OF THE INFORMATION, WE ASSUME NO RESPONSIBILITY FOR THE RESULT OF ITS USE. THIS INFORMATION AND MATERIAL IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE MATERIAL FOR HIS/HER PARTICULAR PURPOSE AND ON THE CONDITION THAT HE/SHE ASSUME THE RISK OF HIS/HER USE THEREOF

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