SAFETY DATA SHEET

Date: June 2015

Lapmaster Wolters, LLC
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Mt. Prospect, IL 60056

Telephone: (224) 659-7101 (Office Hours 8:00 a.m. to 5:30 p.m. CST)
Emergency Phone: 24 Hours/Chemtrec – 1-800-424-9300

Product Identification: Water Soluble Metalworking Fluid
Product Name: METS-ACUT-BFL-XXXX

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 1C
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1

GHS label elements
Hazard pictograms : 

Signal word : Danger

Hazard statements : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Precautionary statements
Prevention : Wear eye/face protection. Wear protective gloves. Wear protective clothing. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. 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 or physician.

Storage : Store locked up.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements : Avoid contact with skin and clothing. Wash thoroughly after handling.
Section 2. Hazards identification

Hazard not otherwise classified: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>20-30</td>
<td>64742-52-5</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecen-1-yl-ω-hydroxy-, phosphate</td>
<td>1-5</td>
<td>39464-69-2</td>
</tr>
<tr>
<td>2',2'-nitrotributylstilbene</td>
<td>1-5</td>
<td>102-71-6</td>
</tr>
<tr>
<td>2-butyaminecyclomethane</td>
<td>1-5</td>
<td>111-75-1</td>
</tr>
<tr>
<td>2',2'-oxybisethanol</td>
<td>1-5</td>
<td>111-46-6</td>
</tr>
<tr>
<td>2',2,2&quot;-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>1-5</td>
<td>4719-04-4</td>
</tr>
<tr>
<td>1,1'-iminodipropan-2-ol</td>
<td>1-5</td>
<td>110-97-4</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact**: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

**Inhalation**: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact**: Get medical attention immediately. Call a poison center or physician. Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion**: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact**: Causes serious eye damage.
Section 4. First aid measures

**Inhalation**
May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**
Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

**Ingestion**
May cause burns to mouth, throat and stomach.

**Over-exposure signs/symptoms**

**Eye contact**
Adverse symptoms may include the following:
- Pain
- Watering
- Redness

**Inhalation**
No specific data.

**Skin contact**
Adverse symptoms may include the following:
- Pain or irritation
- Redness
- Dryness
- Cracking
- Blistering may occur

**Ingestion**
Adverse symptoms may include the following:
- Stomach pains

**Notes to physician**
In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**
No specific treatment.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**
Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**
None known.

**Specific hazards arising from the chemical**
In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**
Decomposition products may include the following materials:
- Carbon dioxide
- Carbon monoxide
- Nitrogen oxides
- Phosphorus oxides

**Special protective equipment for fire-fighters**
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

**Personal precautions**
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**Environmental precautions**
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods for cleaning up**

Section 6. Accidental release measures

**Small spill**  
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill**  
Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

**Handling**  
Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage**  
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS #</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>64742-52-5</td>
<td>TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</td>
<td>TWA: 5 mg/m³ 8 hours.</td>
<td>LMPE-PPT: 5 mg/m³ 8 hours. Form: mist</td>
</tr>
<tr>
<td>2,2’,2”-nitrilotriethanol</td>
<td>102-71-6</td>
<td>TWA: 5 mg/m³ 8 hours.</td>
<td></td>
<td>LMPE-CT: 10 mg/m³ 15 minutes. Form: mist</td>
</tr>
</tbody>
</table>

**Engineering measures**  
If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Hygiene measures**  
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protection**

**Respiratory**  
If a risk assessment indicates this is necessary, use a properly fitted, air-purifying or airfed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Section 8. Exposure controls/personal protection

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal protective equipment (Pictograms):

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.
Color: Blue.
Odor: Mild.
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: Not available.
Flash point: Closed cup: Not applicable.
Burning time: Not applicable.
Burning rate: Not applicable.
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.

Vapor pressure: Not available.
Vapor density: Not available.
Relative density: 0.9863
Solubility: Easily soluble in the following materials: cold water and hot water.
Solubility in water: Not available.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Kinematic (40°C (104°F)): <1.08 cm²/s (<108 cSt)
Elemental Phosphorus: Not available.
VOC content: 3.037 %
Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No specific data.
Incompatible materials: Extremely reactive or incompatible with the following materials: oxidizing materials and reducing materials.
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 11. Toxicological information

Information on toxicological effects
Carcinogenicity
Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>EPA</th>
<th>NIOSH</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>A4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2,2’,2”-nitrilotriethanol</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure: Dermal contact. Eye contact. Inhalation.

Potential acute health effects
Eye contact: Causes serious eye damage.
Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
Ingestion: May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics
Eye contact: Adverse symptoms may include the following:
- pain
- watering
- redness

Inhalation: No specific data.
Skin contact: Adverse symptoms may include the following:
- pain or irritation
- redness
- dryness
- cracking
- blistering may occur

Ingestion: Adverse symptoms may include the following:
- stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure
Short term exposure
Section 11. Toxicological information

Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Potential chronic health effects
Not available.

General: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>5388.8 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Ecotoxicity: Not available.

Aquatic ecotoxicity
Not available.

Section 13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

IATA/IMDG/DOT/TDG: Please refer to the Bill of Lading/receiving documents for up to date shipping information.

Section 15. Regulatory information

U.S. Federal regulations: TSCA 12(b) one-time export: No products were found.
TSCA 12(b) annual export notification: No products were found.
United States inventory (TSCA 8b): All components are listed or exempted.

EPA Registration Number: Not available.
Section 15. Regulatory information

Clean Air Act  Section 112  (b) Hazardous Air Pollutants (HAPs)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.
SARA 311/312
Classification : Immediate (acute) health hazard
               Delayed (chronic) health hazard

State regulations

Massachusetts : The following components are listed: TRIETHANOLAMINE; DIISOPROPANOLAMINE
New York : None of the components are listed.
New Jersey : The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED); TRIETHANOLAMINE; ETHANOL, 2,2',2"-NITRILOTRIS-
Pennsylvania : The following components are listed: ETHANOL, 2,2',2"-NITRILOTRIS-; ETHANOL, 2,2'-OXYBIS-; 2-PROPA
California Prop. 65
Not available.

Canada

Canadian lists

Canadian NPRI : None of the components are listed.
Canada inventory : All components are listed or exempted.
Canadian PCP/DIN Number : Not available.

International regulations

International lists

Australia inventory (AICS) : Not determined.
China inventory (IECSC) : Not determined.
Japan inventory : Not determined.
Korea inventory : Not determined.
Malaysia Inventory (EHS Register) : Not determined.
New Zealand Inventory of Chemicals (NZIoC) : Not determined.
Philippines inventory (PICCS) : Not determined.
Taiwan inventory (CSNN) : Not determined.

Chemical Weapons Convention List Schedule III Chemicals : Listed

Section 16. Other information

History

Date of printing : 5/28/2015.
Date of issue/Date of revision : 5/28/2015.
Date of previous issue : No previous validation.
Version : 1

Notice to reader
Section 16. Other information

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