SAFETY DATA SHEET

SDS # : 083886

DYNATRANS MP

Date of the previous version: not applicable       Revision Date: 2015-05-07       Version 1

1. IDENTIFICATION

Product identifier

Product name
DYNATRANS MP

Other means of identification

Product Code(s)          Number
083886                   3VV

Substance/mixture
Mixture

Recommended use of the chemical and restrictions on use

Identified uses
Hydraulic Fluid.

Uses advised against
Do not use for any purpose other than the one for which it is intended

Details of the supplier of the safety data sheet

Supplier Address
TOTAL Specialties USA Inc
1201 Louisiana Street, Suite 1800
Houston, TX  77002
Phone: +1 800 323 3198

Contact Point
Technical/ HSEQ

E-mail Address
USRMLIN-info@total.com

Emergency telephone number
Company Phone Number       Emergency telephone
+1 (908) 862-9300           CHEMTREC: +1 800 424 9300 (24h)

2. HAZARDS IDENTIFICATION

Classification
Serious eye damage/eye irritation - Category 2A

Label elements
WARNING

Causes serious eye irritation

Precautionary Statements - Prevention
Wear eye/face protection
Wash hands thoroughly after handling

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Unknown Acute Toxicity
Not applicable

Hazards not otherwise classified (HNOC)
• None known

Other information
• Contaminated surfaces will be extremely slippery
• Should not be released into the environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc alkyl dithiophosphate</td>
<td>68649-42-3</td>
<td>1-5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice
IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact
Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation persists.

Skin contact
Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation develops and persists.
Inhalation

Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.

Ingestion

If swallowed, do not induce vomiting - seek medical advice. Clean mouth with water. Remove from exposure, lie down. Never give anything by mouth to an unconscious person. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

Most important symptoms/effects, acute and delayed

Skin contact

Not classified.

Eye contact

Causes serious eye irritation.

Inhalation

Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Ingestion

Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Redness.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Carbon dioxide (CO₂). Dry chemical.

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Special Hazard

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

 Explosion Data

Sensitivity to Mechanical Impact

None.

Sensitivity to Static Discharge

None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
General Information
Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Ensure adequate ventilation. Use personal protective equipment. Evacuate personnel to safe areas. Avoid breathing vapors or mists.

Other information
See Section 12 for additional information.

Environmental precautions
Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up
Methods for cleaning up
Dam up. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use mechanical means such as pumps, skimmers and absorbent materials.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on safe handling
When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Hygiene measures
Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

Conditions for safe storage, including any incompatibilities
Technical measures/Storage conditions
Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture. Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place.

Materials to Avoid
Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
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Control parameters

Exposure limits
Contains no substances with occupational exposure limit values.

Exposure controls

Engineering Measures
Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment

General Information
If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Eye/Face Protection
If splashes are likely to occur, wear: Safety glasses with side-shields.

Skin and body protection
Wear suitable protective clothing. Protective shoes or boots.

Hand Protection
Protective gloves. Impervious gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures
Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>brown</td>
</tr>
<tr>
<td>Physical State @20°C</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Petroleum distillates</td>
</tr>
</tbody>
</table>
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**10. STABILITY AND REACTIVITY**

**Reactivity**  
No information available.

**Chemical stability**  
Stable under recommended storage conditions.

**Possibility of hazardous reactions**  
None under normal processing.

**Conditions to Avoid**  
Heat, flames and sparks. Take precautionary measures against static discharges. Heat (temperatures above flash point), sparks, ignition points, flames, static electricity. Strong oxidizing agents.

**Incompatible Materials**  
Strong oxidizing agents.

**Hazardous Decomposition Products**  
Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

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**11. TOXICOLOGICAL INFORMATION**

**Odor Threshold**  
No information available

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td>Not applicable</td>
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</tr>
<tr>
<td>Melting point/range</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point-boiling range</td>
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<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;= 200 °C</td>
<td></td>
<td>Cleveland Open Cup (COC)</td>
</tr>
<tr>
<td></td>
<td>&gt;= 392 °F</td>
<td></td>
<td>Cleveland Open Cup (COC).</td>
</tr>
<tr>
<td>Evaporation rate</td>
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<td>No information available</td>
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</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>upper</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td></td>
<td>No information available</td>
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</tr>
<tr>
<td>Relative density</td>
<td>0.87 - 0.88</td>
<td>@ 15 °C</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>870 - 880 kg/m³</td>
<td>@ 15 °C</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>logPow</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td></td>
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</tr>
<tr>
<td>Decomposition temperature</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>&gt; 55 mm²/s</td>
<td>@ 40 °C</td>
<td>ASTM D 445</td>
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<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
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<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not applicable</td>
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<td></td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.870 - 0.880</td>
<td>@ 15 °C</td>
<td></td>
</tr>
<tr>
<td>Freezing Point</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Pour point</td>
<td>-33 °C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Acute toxicity

Information on likely routes of exposure

Product Information

- **Skin contact**: Not classified.
- **Eye contact**: Causes serious eye irritation.
- **Inhalation**: Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
- **Ingestion**: Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Numerical measures of toxicity - Product Information**

- **Unknown Acute Toxicity**: Not applicable

**Information on toxicological effects**

- **Symptoms**: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Redness.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

- **Serious eye damage/eye irritation**: Irritating to eyes.
- **Sensitization**: Not classified as a sensitizer.
- **Carcinogenicity**: This product is not classified carcinogenic.

**Mutagenicity**: This product is not classified as mutagenic.

- **Reproductive toxicity**: This product does not present any known or suspected reproductive hazards.
- **Aspiration Hazard**: Not classified.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Acute aquatic toxicity - Product Information**

No experimental data available

**Acute aquatic toxicity - Component Information**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
<th>Toxicity to microorganisms</th>
</tr>
</thead>
</table>
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<table>
<thead>
<tr>
<th>Component</th>
<th>EC50 (96h) 1 - 5 mg/l</th>
<th>LC50 (96h) 1-5 mg/L</th>
<th>EC50 (48h) 1 - 1.5 mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc alkyl dithiophosphate 68649-42-3</td>
<td>(Selenastrum capricornutum - OECD 201)</td>
<td>(Pimephales promelas - static - OECD 203)</td>
<td>(Daphnia magna - OECD 202)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50 (96h) 10-35 mg/L (Pimephales promelas - semi-static - OECD 203)</td>
<td></td>
</tr>
</tbody>
</table>

Chronic aquatic toxicity - Product Information

No experimental data available

Chronic aquatic toxicity - Component Information

No information available

Effects on terrestrial organisms

No experimental data available.

Persistence and degradability

General Information

No information available.

Bioaccumulative potential

Product Information

No information available.

logPow

No information available

Component Information

No information available.

Mobility

Soil

No information available

Other adverse effects

No information available

General Information

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods

Dispose of in accordance with local regulations. Should not be released into the environment.

Contaminated packaging

Dispose of in accordance with local regulations.
This product contains one or more substances that are listed with the State of California as a hazardous waste.

### 14. TRANSPORT INFORMATION

**DOT**

Not regulated

**TDG**

Not regulated

**MEX**

Not regulated

**ICAO/IATA**

Not regulated

**IMDG/IMO**

Not regulated

**ADR/RID**

Not regulated

**ADN**

Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

All the substances contained in this product are listed or exempted from listing in the following inventories:

U.S.A. (TSCA)

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

- **Acute Health Hazard**: Yes
- **Chronic Health Hazard**: no
- **Fire Hazard**: no
- **Sudden Release of Pressure Hazard**: no
- **Reactive Hazard**: no

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.
U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
No information available

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and chemical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)
Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

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Revision Note: No information available

Abbreviations, acronyms

Legend

Section 8
ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH - National Institute for Occupational Safety and Health
TLV - Threshold Limit Values
PEL - Permissible Exposure Limits
IDHL - Immediately Dangerous to Life or Health concentrations
TWA - Time Weight Average
STEL - Short Term Exposure Limits
S* - Skin notation
TSCA - Toxic Substance Control Act

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 guidance 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 the safety data sheet