



**MATERIAL SAFETY DATA SHEET**  
**OAKFLO® DSS T-TECH**  
**METALWORKING FLUID CONCENTRATE**



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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Identification of the substance/preparation</b>	<b>OAKFLO® DSS T-TECH</b>
<b>Generic Name:</b>	Water Soluble Metalworking Fluid Concentrate
<b>Manufacturer</b>	Milacron Canada Corp. 1175 Appleby Line, Unit B1 Burlington Ontario, L7L5H9 Canada
<b>Emergency</b>	Telephone (USA): 1-800-424-9300 (CHEMTREC) Telephone (Outside USA): 1-703-527-3887 (CHEMTREC)
<b>General information</b>	Telephone: 1-905-319-1919

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### 2. HAZARDS IDENTIFICATION

	<b>Product</b>	<b>Product at Use Dilution</b>
<b>Inhalation:</b>	Not Applicable	Extended exposure to mist may cause upper respiratory irritation.
<b>Eye Contact:</b>	Product is a primary eye irritant.	Will cause stinging sensation in the eye.
<b>Skin Contact:</b>	Product may be a primary skin irritant.	Not irritating to the skin when used as directed and good personal hygiene is practiced.
<b>Ingestion:</b>	Not orally toxic.	Swallowing small quantities may cause diarrhea, nausea or vomiting.
<b>Product R-phrases(s):</b>		
<b>R36/38</b>	Irritating to eyes and skin.	
<b>Product S-phrases(s):</b>		
<b>S24/25</b>	Avoid contact with skin and eyes.	
<b>S36/37/39</b>	Wear suitable protective clothing, gloves and eye/face protection.	
<b>Emergency Overview</b>	Product is alkaline. Product is corrosive to aluminum. Product is a primary eye irritant. Product may be a primary skin irritant. Highway spills could result in slippery conditions. No other significant health effects are associated with this material.	

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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<b>Component</b>	<b>CAS #</b>	<b>Weight Percent (wt/wt)</b>
SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES	64742-52-5	10 - 30
TRIETHANOLAMINE	102-71-6	1 - 5
PETROLEUM SULFONIC ACID, SODIUM SALT	68608-26-4	1 - 5
HEXAHYDRO-1,3,5-TRIS (2-HYDROXYETHYL)-S-TRIAZINE	4719-04-4	1 - 5
AMINOMETHYLPROPANOL	124-68-5	1 - 5
SYNTHETIC SODIUM SULFONATE	78330-12-8	1 - 5

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**These ingredients may contribute to the acute product hazards listed under the Potential Health Effects section. Other substances, not hazardous under the OSHA Hazard Communication Standard, may be present. Further composition information may be available to health professionals as provided in the Standard.**

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#### 4. FIRST AID MEASURES

<b>Skin Contact</b>	For skin contact flush with large amounts of water while removing contaminated clothing. Remove contaminated shoes and clothing and launder before reuse. If irritation persists, get medical attention.  Diluted product is not irritating to the skin when used as recommended and good personal hygiene is practiced.
<b>Eyes</b>	In case of eye contact, flush immediately with running water for at least 15 minutes, and get prompt medical attention.
<b>Inhalation</b>	Inhalation can occur in applications where high mist levels are generated. OSHA has set a PEL of 15 mg/m <sup>3</sup> for any airborne particulate as a nuisance level of exposure. NIOSH has set a REL of 0.5 mg/m <sup>3</sup> for metalworking fluid mist. If symptoms are experienced, remove source of contamination or move victim to fresh air. If symptoms persist, get medical attention.
<b>Ingestion</b>	If the material is swallowed, get immediate medical attention or advice. <b>DO NOT INDUCE VOMITING.</b> Give two glasses of water or milk. Immediately contact a physician and obtain treatment. Swallowing small quantities of diluted product may cause nausea, diarrhea or abdominal distress.

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#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing Media</b>	Not Applicable
<b>Hazardous Combustion Products</b>	Smoke, fumes, oxides of nitrogen, hydrogen chloride, and oxides of carbon

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**HMIS RATINGS**

Health 1  
Flammability Classification 0  
Reactivity 0

**NFPA RATINGS**

Health 1  
Flammability Classification 0  
Reactivity 0

**Flash Point** Not Applicable  
**Lower Explosive Limit:** Not Applicable  
**Upper Explosive Limit:** Not Applicable

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**6. ACCIDENTAL RELEASE MEASURES**

**Containment Procedures** Contain the spill, collect on absorbent material, and discard as dictated by Federal, state and local regulations that may apply. Flush area thoroughly with water.

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**7. HANDLING AND STORAGE**

**Handling** Avoid contact of product with eyes or skin. Wash thoroughly after handling. Do not swallow. Do not store product concentrate in direct sunlight or elevated temperatures. Use only as recommended by Milacron Canada Corp. . If frozen, product separates. Thaw completely at room temperature and stir thoroughly prior to use.

**Other Precautions** Contains amines. Do not add sodium nitrite or other nitrosating agents to this product because suspected cancer-causing nitrosamines may be formed.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Ventilation** For most applications, adequate shop ventilation is needed. However, when high mist levels are generated or where machines are close together or ventilation is inadequate, operators may experience respiratory irritation. For such applications, use of splash guards or mist collectors is recommended.

**Personal protective equipment**

**Eye protection** Proper metalworking plant eye protection required when handling product concentrate.

**Other protective clothing or equipment** Use effective metalworking plant protective clothing as appropriate.



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**Personal protective equipment**

**Respiratory protection** In metalworking fluid applications where time-weighted exposures are 0.5 to 5 mg/m<sup>3</sup>, mist reduction through improved ventilation, mist collection or process modification is recommended by NIOSH. Where this is not possible, NIOSH recommends the use of any air purifying, half-mask respirator including a disposable respirator, equipped with any P- or R-series particulate filter. If the average exposure will exceed 5 mg/m<sup>3</sup>, NIOSH recommends use of a powered, air-purifying respirator equipped with a hood or helmet and a HEPA filter. If respiratory problems are present when mist levels are < 0.5 mg/m<sup>3</sup>, respiratory protection should be based on the individual recommendation of a qualified health care provider.

**Work / Hygiene Practices** Good personal hygiene should always be followed.

**Protective Gloves** Impervious gloves, such as nitrile gloves, are recommended when handling product concentrate.

**Medical Conditions generally aggravated by exposure**

May aggravate existing skin irritation where further defatting or skin penetration could occur.

Skin irritation (redness and dryness of hands) may be experienced when the diluted product has been contaminated by certain oils, by dissolved metals, or when mix ratio is too strong. When problems occur, use of water-resistant barrier creams may be a temporary control measure. Contact Milacron Canada Corp. Technical Services at 1-905-319-1919 for specific recommendations.

When used in applications generating high levels of mist, operator exposure can be minimized by proper ventilation, use of mist collectors or splash guards, as appropriate. If there is doubt about actual mist levels present, monitoring should be conducted. Contact Milacron Canada Corp. at 1-905-319-1919 for specific recommendations.

Repeated excessive exposures to high amounts of triethanolamine may cause liver and kidney effects.

**Signs and symptoms of exposure**

**Acute** Eye injury may result from contact with product. Skin irritation can result from improper use and handling of product.

**Second Priority Substances List**

Material	205 Liter Drums to Reach Trigger Amount	Trigger Amount
Not Applicable		

All ingredients of this product are on the Canadian DSL, NDSL or otherwise comply with CEPA regulations.

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**9. PHYSICAL & CHEMICAL PROPERTIES**

**Appearance / Odor** Clear/Chemical

**pH (Concentrate)** 9.7

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<b>pH (Mix)</b>	8.7 @ 5%
<b>Vapour Pressure</b>	Not Available.
<b>Vapour Density</b>	Not Available.
<b>Boiling Point/Range</b>	100 °C (212 °F)
<b>Freezing Point</b>	Not Available.
<b>Solubility (water)</b>	100 % Miscible
<b>Specific Gravity</b>	1.03
<b>Flash Point</b>	Not Applicable
<b>Lower Explosive Limit:</b>	Not Applicable
<b>Upper Explosive Limit:</b>	Not Applicable
<b>Evaporation Rate</b>	Like water when diluted
<b>Recommended Starting Dilution</b>	5 %
<b>Volatile Organic Content (by ASTM D2369)</b>	14 %

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## 10. STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	Use as directed.
<b>Materials to avoid</b>	Avoid contact with strong acids or oxidizers to product.
<b>Combustion Products</b>	Smoke, fumes, oxides of nitrogen, hydrogen chloride, and oxides of carbon
<b>Stability</b>	Stable under normal conditions.
<b>Hazardous Polymerization</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

Conc. (%)	Acute Oral Toxicity (g/kg) (LD50-Rats)	Acute Inhalation Toxicity (mg/L) (Rats)	Acute Eye Irritation (Rabbits)	Primary Skin Irritation (Rabbits)	Corrosivity (Rabbits)	Acute Dermal Toxicity (g/kg) (LD50 - Rabbits)
100	> 5	Not Determined	Positive	Maybe	Negative	> 5

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## 12. ECOLOGICAL INFORMATION

Not Available.



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**13. DISPOSAL CONSIDERATIONS**

**For Used Product** Disposal procedures must comply with local, county, state and Federal regulations. If pre-treatment is needed, ultrafiltration, emulsion breaking or evaporation may be used. Contact Milacron Canada Corp. at 1-905-319-1919 for assistance.

**For Unused Product** Product is not a hazardous waste as defined under 40 CFR 261. Contact Milacron Canada Corp. at 1-905-319-1919 for assistance.

**Empty Containers** Empty containers will contain a residue which is not considered a hazardous waste under RCRA regulations. Drums can be drained to a "drip dry" condition by inversion and can be offered for recycling or scrap.

**14. TRANSPORT INFORMATION**

For Canada TDG information, please contact Milacron Canada Corp..

**U.S. D.O.T. LAND**

**Hazardous Materials Description and Proper Shipping Name (49 CFR 172.101)**

Not a hazardous material (Per 49CFR 173.154 (d)(1))

**U.S. D.O.T. AIR OR VESSEL**

**Hazardous Materials Description and Proper Shipping Name (49 CFR 172.101)**

Corrosive liquid, basic, organic, n.o.s. III (contains ethanalamines)

**Hazard Class (49 CFR 172.101):** 8  
**Identification Number:** UN3267  
**Packaging Group:** III

**15. REGULATORY INFORMATION**

**EXPOSURE GUIDELINES**

REGULATED MATERIAL	NIOSH REL	OSHA PEL	OSHA STEL	ACGIH TLV	ACGIH STEL
TRIETHANOLAMINE				5 mg/m <sup>3</sup>	
METALWORKING FLUID MIST	0.5 mg/m <sup>3</sup>				
MINERAL OIL (MIST)	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>		5 mg/m <sup>3</sup>	

**CERCLA**

No components of this product are present at levels which require reporting under 40 CFR 302.4.

**EPCRA (SARA) TITLE III Extremely Hazardous Substances (302):** None

**Hazardous Substances (311/312)**

Product is a hazardous substance as defined under the OSHA Hazard Communication Standard and may be reportable under the provisions of SARA Sections 311 and 312.

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**HAZARD CATEGORIES**

**Acute Health:** Yes

**Chronic Health:** No

**Fire:** No

**Sudden Release of Pressure:** No

**Reactive:** No

**WHMIS Classification:** D2B, E

**RCRA**

Product concentrate does not meet the definition of a hazardous waste as defined under 40 CFR 261. It is possible that in use, the product may be contaminated by metals or by chlorinated solvents and the final waste may meet the TCLP definition. Each facility should assess each waste stream to determine if the used fluid should be treated as a hazardous waste.

**TSCA**

The ingredients of this product are on the TSCA inventory.

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**16. OTHER INFORMATION**

**Issue Date**

14-Feb-2013

**Disclaimer**

NOTE: The opinions expressed herein are those of qualified experts within Milacron Canada Corp. and of their suppliers. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and of these opinions and the condition and use of the product are not within the control of Milacron Canada Corp. , it is the user's obligation to determine the conditions of safe use of the product.



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**GLOSSARY OF ABBREVIATIONS**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>C</b>	Corrosive
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>COC</b>	Cleveland Open Cup
<b>DOT</b>	Department of Transportation
<b>E</b>	Explosive
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act (aka SARA)
<b>F</b>	Highly Flammable
<b>F+</b>	Extremely Flammable
<b>IARC</b>	International Agency for Research on Cancer
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>O</b>	Oxidising
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>SARA</b>	Superfund Amendments and Reauthorization Act
<b>STEL</b>	Short-Term Exposure Limit
<b>T</b>	Toxic
<b>T+</b>	Very Toxic
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds
<b>Xi</b>	Irritant
<b>Xn</b>	Harmful