



MATERIAL SAFETY DATA SHEET
OAKFLO® DSS 700
METALWORKING FLUID CONCENTRATE



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification of the substance/preparation	OAKFLO® DSS 700
Generic Name:	Water Soluble Metalworking Fluid Concentrate
Manufacturer	Milacron Canada Corp. 1175 Appleby Line, Unit B1 Burlington Ontario, L7L5H9 Canada
Emergency	Telephone (USA): 1-800-424-9300 (CHEMTREC) Telephone (Outside USA): 1-703-527-3887 (CHEMTREC)
General information	Telephone: 1-905-319-1919

2. HAZARDS IDENTIFICATION

	Product	Product at Use Dilution
Inhalation:	Not Applicable	Extended exposure to mist may cause upper respiratory irritation.
Eye Contact:	Product is a primary eye irritant.	Will cause stinging sensation in the eye.
Skin Contact:	Product may be a primary skin irritant.	Not irritating to the skin when used as directed and good personal hygiene is practiced.
Ingestion:	Not orally toxic.	Swallowing small quantities may cause diarrhea, nausea or vomiting.
Product S-phrase(s): S53	Avoid exposure - obtain special instructions before use.	
Emergency Overview	Product is alkaline. 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.	

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS #	Weight Percent (wt/wt)
SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES	64742-52-5	10 - 30



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Component	CAS #	Weight Percent (wt/wt)
MONOISOPROPANOLAMINE	78-96-6	1 - 5
MONOETHANOLAMINE	141-43-5	1 - 5
ALKOXYLATED LINEAR ALCOHOLS	68987-81-5	1 - 5
PETROLEUM SULFONIC ACID, SODIUM SALT	68608-26-4	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.

4. FIRST AID MEASURES

Skin Contact	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.
Eyes	In case of eye contact, flush immediately with running water for at least 15 minutes, and get prompt medical attention.
Inhalation	Inhalation can occur in applications where high mist levels are generated. OSHA has set a PEL of 15 mg/m ³ for any airborne particulate as a nuisance level of exposure. NIOSH has set a REL of 0.5 mg/m ³ for metalworking fluid mist. If symptoms are experienced, remove source of contamination or move victim to fresh air. If symptoms persist, get medical attention.
Ingestion	If the material is swallowed, get immediate medical attention or advice. DO NOT INDUCE VOMITING. 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.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Not Applicable
Hazardous Combustion Products	Smoke, fumes, oxides of nitrogen, 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

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.

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, thaw completely at room temperature 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.

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/m³, 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/m³, 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/m³, 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 monoethanolamine 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.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance / Odor Hazy/Chemical

pH (Concentrate) 9.5

Material Name: OAKFLO® DSS 700
71PCG311

Effective Date: 10-21-2011



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pH (Mix)	8.9 @ 5%
Vapour Pressure	Not Available.
Vapour Density	Not Available.
Boiling Point/Range	100 °C (212 °F)
Freezing Point	Not Available.
Solubility (water)	100 % Miscible
Specific Gravity	1.02
Flash Point	Not Applicable
Lower Explosive Limit:	Not Applicable
Upper Explosive Limit:	Not Applicable
Evaporation Rate	Like water when diluted
Recommended Starting Dilution	5 %
Volatile Organic Content (by ASTM D2369)	9 %

10. STABILITY AND REACTIVITY

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

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

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

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

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

Not a Hazardous Material

15. REGULATORY INFORMATION

EXPOSURE GUIDELINES

REGULATED MATERIAL	NIOSH REL	OSHA PEL	OSHA STEL	ACGIH TLV	ACGIH STEL
MONOETHANOLAMINE		3 ppm	6 ppm	3 ppm	6 ppm
METALWORKING FLUID MIST	0.5 mg/m ³				
MINERAL OIL (MIST)	5 mg/m ³	5 mg/m ³		5 mg/m ³	

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

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.

16. OTHER INFORMATION

Issue Date

21-Oct-2011

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

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