

SAFETY DATA SHEET

1. Identification

Product identifier	STARBRIGHT™ 460 METALWORKING FLUID
Other means of identification	
SDS number	Not applicable
Recommended use	METALWORKING FLUID
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	Milacron Marketing Company LLC 3000 Disney Street Cincinnati, Ohio 45209
Telephone (General Information)	513-458-8199
Emergency telephone number	1-800-424-9300 (CHEMTREC)
Emergency telephone number (outside USA)	1-703-527-3887 (CHEMTREC)

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning
Hazard statement	Causes serious eye irritation. Causes skin irritation.
Precautionary statement	
Prevention	Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist or vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Response	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. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a poison center/doctor if you feel unwell. Wash contaminated clothing before reuse.
Storage	Keep container tightly closed. Protect from sunlight. Store in a well-ventilated place. Store away from incompatible materials. Store in accordance with local/regional/national/international regulations.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES		64742-52-5	10 - 30
PARAFFIN WAXES AND HYDROCARBON WAXES, CHLORO		63449-39-8	3 - 7
MONOETHANOLAMINE		141-43-5	1 - 5
MONOISOPROPANOLAMINE		78-96-6	1 - 5
NONYLPHENOL, BRANCHED, ETHOXYLATED		68412-54-4	0.5 - 1.5
3-iodo-2-propynyl butylcarbamate		55406-53-6	0.1 - 1
Other components below reportable levels			40 - 70

The exact percentages of hazardous ingredients have been withheld as a trade secret.

4. First-aid measures

Inhalation	If symptoms are experienced, remove source of contamination or move victim to fresh air. Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Get medical attention if symptoms persist.
Skin contact	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Rinse mouth thoroughly. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Drink 1 or 2 glasses of water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation. Skin irritation. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemicals. Dry chemical powder. Carbon dioxide (CO2). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Not applicable, non-combustible.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire-fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Local authorities should be advised if significant spillages cannot be contained. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Do not flush spill to drain. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Clean up in accordance with all applicable regulations.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and storage

Precautions for safe handling

Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not breathe vapor. Do not ingest. Avoid contact with skin and eyes. Avoid prolonged and repeated contact. Do not get this material on clothing. Use only in well-ventilated areas. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash contaminated clothing before reuse. Wash thoroughly after handling. Practice good housekeeping. Handle and open container with care. Do not empty into drains. If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use.

Conditions for safe storage, including any incompatibilities

To maintain product quality, do not store in heat or direct sunlight. Store in original tightly closed container. Keep containers closed when not in use. Store in a well-ventilated place. Do not allow material to freeze. Room temperature - normal conditions. Store away from incompatible materials (see Section 10 of the SDS). Keep away from food, drink and animal feedingstuffs. Use care in handling/storage.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	PEL	6 mg/m3
		3 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m3
		6 ppm
	TWA	8 mg/m3 3 ppm

US. ACGIH Threshold Limit Values

	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

Appropriate engineering controls

Ensure compliance with applicable exposure limits. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Avoid contact with eyes. Eye wash fountain is recommended.

Skin protection

Hand protection

Use protective gloves made of: Nitrile.

Other

Wear suitable protective clothing and gloves.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	CLEAR
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	CHEMICAL
Odor threshold	Not available.
pH	9.7
Melting point/freezing point	< 24 °F (< -4.4 °C)
Initial boiling point and boiling range	212 °F (100 °C)
Flash point	Not Applicable
Evaporation rate	Like water when diluted
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	100 % Water Miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
pH in aqueous solution	8.5
Specific gravity	1.041
VOC ASTM D2369	7 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines. Strong acids. Strong oxidizing agents. Avoid contact with oxidizers or reducing agents.
Hazardous decomposition products	Smoke, fumes, oxides of nitrogen, hydrogen chloride, and oxides of carbon

11. Toxicological information**Information on likely routes of exposure**

Ingestion	Expected to be a low ingestion hazard. May be harmful if swallowed.
Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system. Health injuries are not known or expected under normal use.
Skin contact	May be harmful in contact with skin. Causes skin irritation.
Eye contact	Harmful in contact with eyes. Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation. Skin irritation. Defatting of the skin.

Information on toxicological effects

Acute toxicity May be harmful if swallowed. May be harmful in contact with skin. May cause respiratory irritation.

Components	Species	Test Results
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3-IODO-2-PROPYNYL BUTYLCARBAMATE (CAS 55406-53-6)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Oral

LD50 Rat 1.1 g/kg

MONOETHANOLAMINE (CAS 141-43-5)

Acute

Dermal

LD50 Rabbit 1025 mg/kg

Inhalation

LC50 Mouse > 1210 mg/m³

Oral

LD50 Guinea pig 620 mg/kg

Mouse 700 mg/kg

Rat 1750 mg/kg

Other

LD50 Mouse 50 mg/kg

Rat 67 mg/kg

MONOISOPROPANOLAMINE (CAS 78-96-6)

Acute

Dermal

LD50 Rabbit 1576 mg/kg

Oral

LD50 Rat 1715 mg/kg

NONYLPHENOL, BRANCHED, ETHOXYLATED (CAS 68412-54-4)

Acute

Oral

LD50 Rat 3550 mg/kg

SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES (CAS 64742-52-5)

Acute

Dermal

LC50 Rabbit > 5000 mg/kg

Inhalation

LC50 Rat > 5 mg/l, 4 hours

Oral

LC50 Rat > 5000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Defatting, drying and cracking of skin.

Serious eye damage/eye irritation Causes serious eye irritation. Harmful in contact with eyes.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization Not classified.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be harmful if swallowed and enters airways.
Chronic effects	Prolonged exposure may cause chronic effects.
Further information	Symptoms may be delayed.

12. Ecological information

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.

Components	Species	Test Results
3-IODO-2-PROPYNYL BUTYLCARBAMATE (CAS 55406-53-6)		
Aquatic		
Fish	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.05 - 0.089 mg/l, 96 hours
MONOETHANOLAMINE (CAS 141-43-5)		
Aquatic		
Fish	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss)	114 - 196 mg/l, 96 hours
MONOISOPROPANOLAMINE (CAS 78-96-6)		
Aquatic		
Fish	LC50 Goldfish (Carassius auratus)	210 mg/l, 96 hours
PARAFFIN WAXES AND HYDROCARBON WAXES, CHLORO (CAS 63449-39-8)		
Aquatic		
Fish	LC50 Bluegill (Lepomis macrochirus)	> 0.1 mg/l, 96 hours
SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES (CAS 64742-52-5)		
<i>Acute</i>		
Crustacea	EC50 Daphnia	> 1000 mg/l, 48 hours
Aquatic		
<i>Acute</i>		
Fish	LC50 Fathead minnow (Pimephales promelas)	> 30000 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

MONOETHANOLAMINE	-1.31
MONOISOPROPANOLAMINE	-0.96

Mobility in soil This product is miscible in water.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Consult authorities before disposal. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not contaminate ponds, waterways or ditches with chemical or used container.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

14. Transport information

DOT

UN number UN3082

UN proper shipping name Environmentally hazardous substances, liquid, n.o.s. (PARAFFIN WAXES AND HYDROCARBON WAXES, CHLORO, SYNTHETIC SODIUM SULFONATE SOLUTION), MARINE POLLUTANT

Transport hazard class(es)

Class 9

Subsidiary risk -

Label(s) 9

Packing group III

Environmental hazards

Marine pollutant Yes

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Special provisions 8, 146, 335, IB3, T4, TP1, TP29

Packaging exceptions 155

Packaging non bulk 203

Packaging bulk 241

Supplemental Information: 49CFR 171.4 excludes "non-bulk" packages (119 gallons or less) from Marine Pollutant Requirements unless all or part of the shipment is by vessel.

IATA

UN number UN3082

UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (PARAFFIN WAXES AND HYDROCARBON WAXES, CHLORO, SYNTHETIC SODIUM SULFONATE SOLUTION)

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards No.

ERG Code 9L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed.

Cargo aircraft only Allowed.

IMDG

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PARAFFIN WAXES AND HYDROCARBON WAXES, CHLORO, SYNTHETIC SODIUM SULFONATE SOLUTION), MARINE POLLUTANT

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant Yes

EmS F-A, S-F

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

DOT; IATA; IMDG





15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. It may be reportable under the provisions of SARA Sections 311 and 312 if specific threshold criteria are met or exceeded.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
3-iodo-2-propynyl butylcarbamate	55406-53-6	0.1 - 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Food and Drug Administration (FDA)

Not regulated.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US. Massachusetts RTK - Substance List

MONOETHANOLAMINE (CAS 141-43-5)
 MONOISOPROPANOLAMINE (CAS 78-96-6)

US. New Jersey Worker and Community Right-to-Know Act

3-iodo-2-propynyl butylcarbamate (CAS 55406-53-6) 500 lbs

US. Pennsylvania RTK - Hazardous Substances

MONOETHANOLAMINE (CAS 141-43-5)
 MONOISOPROPANOLAMINE (CAS 78-96-6)

US. Rhode Island RTK

3-iodo-2-propynyl butylcarbamate (CAS 55406-53-6)

California South Coast Air Quality Management District (SCAQMD) Rule 1144 (VOC Emissions)

This product is subject to SCAQMD Rule 1144; it is compliant and may be sold and used in the SCAQMD. The VOC content of the product is 11 g/L, measured by ASTM Method E-1868-10. This product has a specified use dilution VOC limit of 75 g/L, the maximum dilution concentration is 100 % to maintain compliance.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory or exempt (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other information, including date of preparation or last revision

Issue date 03-18-2014

Version # 01

Further information Not available.

Disclaimer 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.

Revision Information Product and Company Identification: Product and Company Identification
Hazards Identification: US Hazard Categories
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
Regulatory Information: United States
Material Attributes & Uses; Experimental Data: Product Uses
HazReg Data: Pacific Rim
GHS: Classification