

1. Identification

Product identifier	STARCLEAN™ 505 GENERAL PURPOSE CLEANER	
Other means of identification		
SDS number	Not applicable	
Recommended use	GENERAL PURPOSE CLEANER	
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)	513-458-8100	
Emergency telephone number	1-800-424-9300 (CHEMTREC)	
Emergency telephone number (outside USA)	1-703-527-3887 (CHEMTREC)	

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning	
Hazard statement	May be corrosive to metals. Harmful if swallowed. Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction.	
Precautionary statement		
Prevention	Keep only in original container. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.	
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 soap and water. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Take off contaminated clothing and wash before reuse.	
Storage	Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store away from incompatible materials. Store in accordance with local/regional/national/international regulation.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 6.1% of the mixture consists of component(s) of unknown acute oral toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ETHYLENEDIAMINE-TETRAACETIC ACID, TETRASODIUM SALT		64-02-8	1 - 5
HEXAHYDRO-1,3,5-TRIS(2-HYDROXYETHYL)-S-TRIAZINE		4719-04-4	1 - 5
MONOETHANOLAMINE		141-43-5	1 - 5
NONYLPHENOXYPOLYETHOXYETHANOL		127087-87-0	1 - 5
POTASSIUM HYDROXIDE		1310-58-3	1 - 5
Other components below reportable levels			60 - 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
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 if irritation develops and persists.
Ingestion	Rinse mouth thoroughly. Drink 1 or 2 glasses of water. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
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. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). 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.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Clean up in accordance with all applicable regulations. Following product recovery, flush area with water.

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

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment. Use appropriate containment to avoid environmental contamination.

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 get in eyes, on skin, or on clothing. Avoid breathing mist or vapor. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

To maintain product quality, do not store in heat or direct sunlight. Store in a cool, dry place out of direct sunlight. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS). Keep this material away from food, drink and animal feed. Do not allow material to freeze. If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use.

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
POTASSIUM HYDROXIDE (CAS 1310-58-3)	TWA	8 mg/m3
	TWA	2 mg/m3
MONOETHANOLAMINE (CAS 141-43-5)	TWA	3 ppm

US. ACGIH Threshold Limit Values

	Type	Value
POTASSIUM HYDROXIDE (CAS 1310-58-3)	Ceiling	2 mg/m3
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

Appropriate engineering controls

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). Eye wash fountain is recommended.

Skin protection	
Hand protection	Use protective gloves made of: Nitrile.
Other	Wear suitable protective clothing and gloves. Do not get this material in contact with skin.
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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	CLEAR
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Chemical
Odor threshold	Not available.
pH	11.0
Melting point/freezing point	< 32 °F (< 0 °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	10.4 @ 2%
Specific gravity	1.087
VOC ASTM D2369	6 %

10. Stability and reactivity

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Acids. Aluminum. Avoid contact with oxidizers or reducing agents.

Hazardous decomposition products Smoke, fumes, oxides of nitrogen, and oxides of carbon

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact May cause an allergic skin reaction. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Eye contact Causes serious eye irritation.
Ingestion Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Harmful if swallowed. May cause an allergic skin reaction. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components	Species	Test Results
ETHYLENEDIAMINE-TETRAACETIC ACID, TETRASODIUM SALT (CAS 64-02-8)		
Acute		
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
MONOETHANOLAMINE (CAS 141-43-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	1025 mg/kg
<i>Oral</i>		
LD50	Guinea pig	620 mg/kg
	Mouse	700 mg/kg
	Rat	10.2 g/kg
NONYLPHENOXYPOLYETHOXYETHANOL (CAS 127087-87-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2573 mg/kg
<i>Oral</i>		
LD50	Rat	5000 mg/kg
POTASSIUM HYDROXIDE (CAS 1310-58-3)		
Acute		
<i>Oral</i>		
LD50	Rat	214 mg/kg

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

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

Serious eye damage/eye irritation Causes serious eye irritation. Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

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 This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	May be harmful if absorbed through skin. Prolonged inhalation may be harmful. Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

12. Ecological information

Ecotoxicity

Components	Species	Test Results
ETHYLENEDIAMINE-TETRAACETIC ACID, TETRASODIUM SALT (CAS 64-02-8)		
Aquatic		
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)
		472 - 500 mg/l, 96 hours
MONOETHANOLAMINE (CAS 141-43-5)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (<i>Oncorhynchus mykiss</i>)
		114 - 196 mg/l, 96 hours
NONYLPHENOXYPOLYETHOXYETHANOL (CAS 127087-87-0)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Daphnia
		1.6 - 10 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)
		1.2 - 9.3 mg/l, 96 hours
POTASSIUM HYDROXIDE (CAS 1310-58-3)		
Aquatic		
Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>)
		80 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

Partition coefficient n-octanol / water (log Kow)
MONOETHANOLAMINE -1.31

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. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
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 UN3267

UN proper shipping name Corrosive liquid, basic, organic, n.o.s. (MONOETHANOLAMINE, POTASSIUM HYDROXIDE RQ = 28490 LBS)

Transport hazard class(es)

Class 8

Subsidiary risk -

Label(s) 8

Packing group III

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

Special provisions IB3, T7, TP1, TP28

Packaging exceptions 154

Packaging non bulk 203

Packaging bulk 241

Supplemental Information: This Product Concentrate is corrosive only to Aluminum. Per 49CFR 173.154(d)(1) Except for a hazardous substance, a hazardous waste, or a marine pollutant, a material classed as Class 8 Packing Group III, solely because of its corrosive effect on aluminum - is not subject to any other requirements of this subchapter when transported by motor vehicle or rail car in packaging that will not react or be degraded by the corrosive material.

IATA

UN number UN3267

UN proper shipping name Corrosive liquid, basic, organic, n.o.s. (MONOETHANOLAMINE, POTASSIUM HYDROXIDE)

Transport hazard class(es)

Class 8

Subsidiary risk -

Packing group III

Environmental hazards No.

ERG Code 8L

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

Other information

Passenger and cargo aircraft Allowed.

Cargo aircraft only Allowed.

IMDG

UN number UN3267

UN proper shipping name CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETHANOLAMINE, POTASSIUM HYDROXIDE)

Transport hazard class(es)

Class 8

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant No

EmS F-A, S-B

Special precautions for user 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 established.

DOT





General information IMDG Regulated Marine Pollutant.

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)

HEXAHYDRO-1,3,5-TRIS (2-HYDROXYETHYL)-S-TRIAZINE (CAS 4719-04-4) 1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

POTASSIUM HYDROXIDE (CAS 1310-58-3) 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 - No
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)

Not regulated.

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

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

MONOETHANOLAMINE (CAS 141-43-5)
POTASSIUM HYDROXIDE (CAS 1310-58-3)

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

MONOETHANOLAMINE (CAS 141-43-5)
POTASSIUM HYDROXIDE (CAS 1310-58-3)

US. Pennsylvania Worker and Community Right-to-Know Law

MONOETHANOLAMINE (CAS 141-43-5)

POTASSIUM HYDROXIDE (CAS 1310-58-3)

US. Rhode Island RTK

POTASSIUM HYDROXIDE (CAS 1310-58-3)

California South Coast Air Quality Management District (SCAQMD) Rule 1144 (VOC Emissions) This product is not subject to California's South Coast Air Quality Management District Rule 1144 (Rule only applicable to Metalworking Fluids, Vanishing Oils and Rust Inhibitors).

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

NITRILOTRIACETIC ACID (CAS 139-13-9) Listed: January 1, 1988

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)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
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)	No
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 05-25-2015

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 Codes
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
HazReg Data: North America
GHS: Classification