



Engineered Chemistry®

NA-MINUS® 55

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

24 hr. Emergency Contact (CHEMTREC) US Tel: 1- 800 - 424-9300 - Int'l. Tel. 703 - 527 - 3887

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: CLEARWATER INTERNATIONAL L.L.C.
515 POST OAK BLVD., SUITE 600
HOUSTON, TX 77027

MANUFACTURER: CLEARWATER INTERNATIONAL L.L.C.
100 INDUSTRIAL DRIVE
LEETSDALE, PA 15056

PRODUCT NAME: NA-MINUS® 55

PRODUCT CODE: XFP0055A

PRODUCT USE/CLASS: SALT INHIBITOR

MSDS REVISION DATE: 12/12/05

PREPARER: KS

PHONE: 713-693-4154

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	EXPOSURE LIMITS	CAS#	% BY WEIGHT
AMMONIUM CHLORIDE	NONE ESTABLISHED	12125-02-9	10-30 %
NITRILOTRIACETIC ACID	NONE ESTABLISHED	139-13-9	0.1-1.5 %

3. HAZARD IDENTIFICATION

EYE: Liquid, aerosols and vapors of this product may be irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.

SKIN: May cause skin irritation. Allergic reactions are possible.

INGESTION: May be irritating to mouth throat and stomach, and may cause abdominal discomfort, nausea, and diarrhea.

INHALATION: Prolonged inhalation of concentrated vapors may be harmful. May cause severe irritation to mucous membranes and lung tissue, and can cause coughing, headaches, and tearing.

CHRONIC INFORMATION: Nitriilotriacetic acid is a suspected carcinogen. Overexposure may cause kidney and liver damage.

PRIMARY ROUTE(S) OF ENTRY: Ingestion, Inhalation

4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation persists.

SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists.



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INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

INGESTION: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

FLASH POINT: >200 F
(TAGLIABUE CLOSED CUP)

LOWER EXPLOSIVE LIMIT: N.D.
UPPER EXPLOSIVE LIMIT: N.D.

AUTOIGNITION TEMPERATURE: N.D.

EXTINGUISHING MEDIA: Use media suitable for surrounding materials.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Containers can build up pressure if exposed to heat (fire). Emits highly toxic fumes under fire conditions.

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear a self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Use water spray to keep containers cool.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. (See exposure controls / personal protection section) Spilled material should be disposed of according to applicable regulations.

7. HANDLING AND STORAGE

HANDLING: Handle all chemicals with care. Wash thoroughly after handling.

STORAGE: Keep container closed when not in use. Store in a cool, dry, well ventilated place away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their exposure limits.

RESPIRATORY PROTECTION: No protection needed under normal use and conditions. Use a NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge when high airborne concentrations are expected. High airborne concentrations are found in enclosed spaces or areas with poor ventilation. Protection by air purifying respirators is limited.

SKIN PROTECTION: When contact is likely wear chemical resistant gloves and boots.

EYE PROTECTION: Wear safety glasses with side shields or goggles.

OTHER PROTECTIVE EQUIPMENT: Emergency eye wash stations and deluge showers should be available in the work area.

HYGIENIC PRACTICES: Wash hands before eating. Use only with adequate ventilation. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing.



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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber to Brown liquid
ODOR: N/D
BOILING POINT (RANGE): Similar to water
FREEZE POINT: N/D
VAPOR DENSITY: Heavier than air
VAPOR PRESSURE: N/D
PHYSICAL STATE: Liquid
SOLUBILITY IN WATER: Soluble
PH (AS IS): 4.5-8.0
SPECIFIC GRAVITY: 1.10-1.14

10. STABILITY AND REACTIVITY DATA

CONDITIONS TO AVOID: Avoid temperature extremes. The possibility of cyanide generation from product degradation increases with temperature increase (>200 C).

INCOMPATIBILITY: Mixing with strong bases may release ammonia.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, nitrogen, ammonia, and cyanides.

HAZARDOUS POLYMERIZATION: Will not occur under normal use and storage conditions.

CHEMICAL STABILITY: This product is stable under normal storage conditions. Very low levels of cyanide gas could form from product degradation if improperly handled or stored. Avoid prolonged storage in direct sun in open or clear containers unless properly ventilated and do not subject the chemical to temperature in excess of 200 C.

11. TOXICOLOGICAL INFORMATION

ORAL: No product information is available.

DERMAL: No product information is available.

INHALATION: No product information is available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: *skeletonema costatum* = 72hr EC₅₀ = 311 mg/l
72hr NOEC = 180 mg/l
acartia tonsa = 48hr LC₅₀ = 784 mg/l
48hr NOEC = 180 mg/l
scophthalmus maximus = 96hr LC₅₀ = 755 mg/l
96hr NOEC = 560 mg/l
corophium volutator = 10 day LC₅₀ > 1,545 mg/kg
10 day NOEC > 1,545 mg/kg



**CHEMICAL FATE INFORMATION:** Log K_{ow} < 0

28 day biodegradation = 50 %

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Consult local, state, or federal regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers may be prohibited by federal, state, and local regulations.

RCRA STATUS: NONE**14. TRANSPORTATION INFORMATION****(NON-BULK SHIPMENTS)****D.O.T. PROPER SHIPPING NAME:** Not Regulated**D.O.T. TECHNICAL NAME:** Non-Hazardous for D.O.T. Purposes**D.O.T. HAZARD CLASS:** N/A**HAZARD SUBCLASS:** N/A**D.O.T. UN NUMBER:** N/A**PACKING GROUP:** N/A**RESP. GUIDE PAGE:** N/A**(BULK SHIPMENTS)****D.O.T. PROPER SHIPPING NAME:** Not Regulated**D.O.T. TECHNICAL NAME:** Non-Hazardous for D.O.T. Purposes**D.O.T. HAZARD CLASS:** N/A**HAZARD SUBCLASS:** N/A**D.O.T. UN NUMBER:** N/A**PACKING GROUP:** N/A**RESP. GUIDE PAGE:** N/A**T.D.G. PROPER SHIPPING NAME:** Not Regulated**T.D.G. TECHNICAL NAME:** N/A**T.D.G. HAZARD CLASS:** N/A**HAZARD SUBCLASS:** N/A**T.D.G. UN NUMBER:** N/A**PACKING GROUP:** N/A**RESP. GUIDE PAGE:** N/A**IMDG PROPER SHIPPING NAME:** Not Regulated**IMDG TECHNICAL NAME:** N/A**IMDG HAZARD CLASS:** N/A**HAZARD SUBCLASS:** N/A**IMDG UN NUMBER:** N/A**PACKING GROUP:** N/A**EmS No:** N/A**15. REGULATORY INFORMATION****CERCLA – SARA HAZARD CATEGORY:**

SECTION 311/312: This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD

SARA SECTION 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:





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COMPONENT	CAS#	% BY WEIGHT
NITRILOTRIACETIC ACID	139-13-9	0.1-1.5 %

TSCA STATUS:

All components of this product are listed on the Toxic Substance Control Act Inventory or are excluded from the listing requirements.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: D-2A

CANADIAN ENVIRONMENTAL PROTECTION ACT:

All components of this product are listed on the Canadian Domestic Substance List (DSL).

16. OTHER INFORMATION

HMIS RATING – HEALTH: 2 **FLAMMABILITY:** 1 **REACTIVITY:** 0 **PERSONAL PROTECTIVE RATING:** B

VERSION NUMBER: 1

REPLACES: NONE

REVISION INFORMATION: N.A.

LEGEND: N.A. – NOT APPLICABLE, N.E. - NOT ESTABLISHED, N.D. – NOT DETERMINED

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US, AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.



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