

8155 E. 46th St. Tulsa, OK 74145 | 888.313.8173

Safety Data Sheet Snake Acid

1. IDENTIFICATION

Synonyms none
 CAS# listed below in Part 3
 Material Use hard surface cleaner & lime scale remover

IN AN EMERGENCY CALL: INFOTRAC 1-800-535-5053

2. HAZARD IDENTIFICATION

GHS Class (Category)	<i>metal corrosion (1)</i>	<i>skin irritation (2)</i>	<i>eye corrosion (1)</i>	<i>aquatic chronic (3)</i>
Signal Words	WARNING	WARNING	DANGER	<i>no Signal Word (at this level of hazard)</i> <i>no Pictogram (at this level of hazard)</i>
Hazard Statements	<i>may be corrosive to metals (H290)</i>	<i>causes skin irritation (H315)</i>	<i>causes serious eye damage (H318)</i>	<i>harmful to aquatic life with long-lasting effects (H412)</i>



GHS Precautionary Statements for Labeling

P262 Do not get in eyes, on skin or on clothing.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves and clothing of neoprene.
 P273 Avoid release to the environment.
 P391 Collect spillage.
 P313 & P333 If skin irritation or rash occurs, get medical advice/attention.

3. COMPOSITION

	CAS NUMBER	%	TLV mg/m ³	LD ₅₀ (mg/kg) ORAL	LD ₅₀ (mg/kg) SKIN	LC ₅₀ mg/m ³ INHALATION
Phosphoric Acid	7664-38-2	10-30%	1	1250	1260	25.5
Nonionic Surfactant	on request	5-10%	not listed	>2000	not known	not known
Water	7732-18-5	balance	not toxic	90,000	not toxic	not toxic

NOTE: All color & scent substances are present at below 0.1%, at which level they are entirely harmless.

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4. FIRST AID

- SKIN:** Wash with plenty of water. Remove contaminated clothing and do not reuse until laundered. Seek medical help promptly if there is persistent itching or redness in the affected area.
- EYES:** Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly irritation occurs.
- INHALATION:** Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If victim's breathing stops, administer artificial respiration and seek medical aid promptly.
- INGESTION:** Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity product. The stomach should only be emptied under medical supervision, after the installation of an airway to protect the lungs.

5. FLAMMABILITY & FIRE-FIGHTING

- | | |
|--------------------------|---|
| Flash Point | cannot burn |
| Autoignition Temperature | cannot burn |
| Flammable Limits | cannot burn |
| Combustion Products | smoke, part oxidized hydrocarbon fragments, oxides of phosphorous & nitrogen, ammonia |
| Firefighting Precautions | as for materials sustaining fire; firefighters must wear SCBA |
| Static Discharge | cannot accumulate a static charge |

6. ACCIDENTAL RELEASE MEASURES

- Leak Precaution** dike to control spillage and prevent environmental contamination
- Handling Spill** recover free liquid with corrosion-resistant pumps; absorb residue on an inert sorbent, sweep, shovel & store in closed containers for disposal

7. HANDLING & STORAGE

Store and use away from strong alkalis. Never cut, drill, weld or grind on or near this container, whether empty or full. Always replace drum, pail or IBC cap prior to moving the container!

Avoid generating or breathing product vapor or mist. If mist or vapor form in use, install adequate ventilation to clear workplace air. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

Warning: This product is corrosive to skin, eyes & metals. Avoid spillage & handle with care.

8. EXPOSURE CONTROL & PERSONAL PROTECTION

- | | | | |
|-------------|---|------------|--------------------|
| ACGIH TLV | 1mg/m ³ | ACGIH STEL | 3mg/m ³ |
| OSHA PEL | 1mg/m ³ | OSHA STEL | 3mg/m ³ |
| Ventilation | mechanical ventilation may be required if product mist is created in processing | | |
| Hands | neoprene <u>gauntlet-style</u> gloves – other types also protect; confirm suitability with supplier | | |
| Eyes | safety glasses with side shields plus face shield – always protect the eyes | | |
| Clothing | wear neoprene apron, boots, hat, & long sleeves if there is any danger of splashing, | | |

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9. PHYSICAL AND CHEMICAL PROPERTIES

Odor & Appearance	clear, blue, viscous, liquid with a slight odor
Odor Threshold	not known – <i>nearly odorless</i>
Vapor Pressure	as for water
Evaporation Rate (<i>Butyl Acetate = 1</i>)	as for water
Vapor Density (air = 1)	0.6 – <i>only water vapor is present</i>
Boiling Point	slightly above 100°C / 212°F
Freezing Point	slightly below 0°C / 32°F
Specific Gravity	1.082-1.092 (20/20°C)
Water Solubility	complete
Log P _{o/w} (<i>Octanol/H₂O Partition Coefficient</i>)	not known
Viscosity	not known – <i>viscous liquid</i>
pH	below 1.5 – <i>strongly acidic</i>

10. REACTIVITY

Dangerously Reactive With	strong alkalis
Also Reactive With	corrodes steel, iron, zinc (galvanized surfaces) aluminum, copper, brass, etc
Chemical Stability	stable; will not polymerize
Decomposes in Presence of	not known
Decomposition Products	none apart from Hazardous Combustion Products
Mechanical Impact	not sensitive

11. TOXICITY INFORMATION

i. ACUTE EXPOSURE

Skin Contact	severely irritating to skin if contact is prolonged
Skin Absorption	slight; toxic effects unlikely by this route
Eye Contact	corrosive to eyes, causing permanent damage, if not removed promptly
Inhalation	vapor or mist irritate the nose, throat and lungs
Ingestion	ingestion corrosive to mouth, throat and stomach – <i>not a route of industrial exposure</i>

ii. CHRONIC EXPOSURE

General	prolonged or repeated exposure to dilute product may cause dermatitis
Sensitizing	not a sensitizer
Carcinogen/Tumorigen	not known to be a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect on humans or animals
Mutagen	not known to be a mutagen or teratogen in humans or animals
Synergistic With	not known
Calculated LD ₅₀ (oral)	3500mg/kg (rat)
Calculated LD ₅₀ (skin)	11,350mg/kg (rabbit)
LC ₅₀ (inhalation)	230mg/m ³ (rat)

12. ECOLOGICAL INFORMATION

Bioaccumulation	all components are water soluble & will not bioaccumulate
Biodegradation	anionic surfactant biodegrades readily, rate unknown; glycolic acid 86% in 2 weeks; phosphoric acid & inorganics cannot biodegrade; neutralised phosphoric acid is taken up by plants
Abiotic Degradation	glycolic acid is destroyed, gradually, by ultraviolet; both acids neutralize on contact with alkaline soil materials (eg: limestone)
Mobility in soil, water	water soluble; moves readily through soil & the water column

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12. ECOLOGICAL INFORMATION, cont'd

Aquatic Toxicity	phosphoric acid
LC ₅₀ (Fish, 96hr)	pH 3-3.5 (Lepomis macrochirus & Gambusia affinis)
LC ₅₀ (Crustacea, 12hr)	pH 4.6 (Daphnia magna), pH 4.1 (Daphnia pulex), pH 3.4 (Gammarus pulex & Gammarus fossarum)
EC ₅₀ (Algae)	no information – <i>phosphate salts are essential plant nutrients . . .</i>
EC ₅₀ (Bacteria)	270mg/litre (activated sludge), 240mg/litre (“other protozoans”)
Aquatic Toxicity	glycolic acid
LC ₅₀ (Fish, 96hr)	115mg/litre (Pimephelas promelas), >2850mg/litre (Brachydanio rerio – <i>no mortality</i>)
EC ₅₀ (Crustacea, 48hr)	99mg/litre (Daphnia magna), 158mg/litre (Acartia tonsa)
EC ₅₀ (Algae, 72hr)	31mg/litre (Selenastrum capricornutum), 133mg/litre (Skeletonema costatum)
EC ₅₀ (Bacteria)	>100mg/litre (<i>activated domestic sewage sludge</i>)
EC ₀ (Bacteria)	>1000mg/litre (<i>anaerobic domestic sewage bacteria</i>) – <i>no growth inhibition at this concentration</i>
Nonionic Surfactant:	
Bioaccumulation	this surfactant does not appear to bioaccumulate; however, the breakdown product, unethoxylated nonylphenol, is poorly water soluble and may accumulate
Biodegradation	this surfactant biodegrade readily in the presence of oxygen; 34% biodegradation in 20 days yielding di- and mono-ethoxylate; <u>these latter compounds resist further biodegradation (below)</u>
Abiotic Degradation	not known – should react with atmospheric hydroxyl (OH) radicals; very low volatility makes this a minor degradation route
Mobility in soil, water	sufficiently water soluble to move readily through soil and the water column
Aquatic Toxicity	
LC ₅₀ (Fish, 96 hr)	2.1-2.6mg/litre (Pimephelas promelas), 13.9-19.5mg/litre (Poecilia reticulata – 48hr)
LC ₅₀ (Crustacea, 48hr)	3.8-6.2 & 18.2mg/litre (Daphnia magna), 20.9mg/litre (Gammarus pulex)
EC ₅₀ (Algae, 96hr)	15mg/litre (Lemna minor), 7mg/litre (Scenedesmus quadricauda)

NOTE: Nonylphenol Ethoxylates, as a class of compounds, biodegrade to estrogenic hormone mimics in the environment & may lead to instances of reproductive failure in shore birds, amphibia & fish. (For further information, see various notes in Part XV, Regulations)

13. DISPOSAL CONSIDERATIONS

Waste Disposal	do not flush to sewer without dilution – <i>product should be diluted at least 20:1 before flushing</i> ; neutralization with lime or sodium carbonate followed by biological degradation is probably the best means of disposal
Containers	Drums should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use. Pails must be vented and thoroughly dried prior to crushing and recycling. IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5 years). Steel containers must be inspected, pressure tested & recertified every 5 years. Warning: never cut, drill, weld or grind on or near this container, even if empty.

14. TRANSPORT INFORMATION

USA 49 CFR & Canada/International TDG

Product Identification Number

Shipping Name

Classification

Marine Pollution

ERAP Required

UN – 3264

Corrosive liquid, acidic, inorganic, N.O.S.
(phosphoric acid)

Class 8; Packing Group III
not a marine pollutant

No



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15. REGULATIONS

Canada DSL all components on inventory
U.S.A. TSCA all components on inventory

U.S.A. Regulations:

In the USA, the EPA mounted (August 18, 2010) an “action plan” for nonylphenol ethoxylates: See the *Nonylphenol & Nonylphenol Ethoxylates Action Plan Summary*, <http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/np-npe.html> AND http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/RIN2070-ZA09_NP-NPEs%20Action%20Plan_Final_2010-08-09.pdf

Europe EINECS all components on inventory – *but see notes, below:*

It is prohibited to place on the market or use plant protection products containing nonylphenol ethoxylates (C₂H₄O)_nC₁₅H₂₄O compounds because these active substances have not been included in Annex I to Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market (OJ L 230, 19.8.1991, p 1-32) pursuant to Commission Regulation (EC) No 2076/2002 of 20 November 2002 extending the time period referenced in Article 8(2) of Council Directive 91/414/EEC concerning the non-inclusion of certain active substances in Annex I to that Directive and the withdrawal of authorisations for plant protection products containing these substances (OJ L 319, 23.11.2002, p. 3-11).

Furthermore, in accordance with point 46 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, it is prohibited to place on the market or use nonylphenol ethoxylates (C₂H₄O)_nC₁₅H₂₄O compounds, as substances or in mixtures in concentrations equal to or greater than 0,1 % by weight for several purposes (OJ L 396, 30.12.2006, p. 1-849) pursuant to Commission Regulation (EC) No 552/2009 of 22 June 2009 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII (OJ L 164, 26.6.2009, p. 7-31).

Nonylphenol ethoxylates (C₂H₄O)_nC₁₅H₂₄O compounds have therefore been added to Annex I to Regulation (EC) No 689/2008 of the European Parliament and of the Council concerning the export and import of dangerous chemicals (OJ L 204, 31.7.2008, p. 1-35).

European Regulations forbid the use of Nonylphenol Ethoxylates for dispersive uses, but allow their use in applications where there is little or no release to the environment. Read this brief summary from July 1997 (when Europe began to reduce nonylphenol ethoxylate use):

<http://mdl.csa.com/partners/viewrecord.php?requester=gs&collection=ENV&recid=4243335&q=http%3A%2F%2Fwww.csa.com%2Fpartners%2Fviewrecord.php%3Frequester%3Dgs%26collection%3DENV%26recid%3D4243335&uid=791557892&setcookie=yes>

16. OTHER INFORMATION

Date of Preparation August 2014

Date of Revision -

Prepared for PCS

With data from the Registry of Toxic Effects of Chemical Substances (RTECS), Hazardous Substance Data Base (HSDB), Cheminfo (CCOHS), OSHA, IUCLID Datasheets (European Chemical Substance Information System - ESIS), & others sources (below if used), as required/available

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