



SAFETY DATA SHEET

Issue Date 01-Mar-1996

Revision Date 12-Nov-2012

Version 1

1. IDENTIFICATION

Product Identifier

Product Name CONDOR Soil Stabilizer

Other means of identification

SDS # ES-03

UN/ID No UN1760

Recommended use of the chemical and restrictions on use

Recommended Use Ion exchanging soil stabilizer.

Details of the supplier of the safety data sheet

Supplier Address

Earth Science Products
23735 NE Airport Rd.
Aurora, OR 97002 USA
Mailing address:
PO Box 327
Wilsonville, OR 97070

Emergency telephone number

Company Phone Number Phone: 001 503-678-1216
Fax: 001 503-678-3374
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America) Contract #74846

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A

Signal word

Danger

Hazard statements

Causes severe skin burns and eye damage
May cause cancer
Harmful if inhaled



Appearance Oily, dark colored liquid

Physical state liquid

Odor Characteristic

Precautionary Statements - Prevention

Use personal protective equipment as required
 Use only outdoors or in a well-ventilated area
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid breathing dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not Applicable

Other Information

5% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Water	7732-18-5	72	*
Buffered Sulfuric Acid	7664-93-9	23	*
Natural ion exchange polymers*	Proprietary	5	*

Chemical Additions *natural ion exchange polymers, colloidal disperants, and sulfonated surfactants in buffered sulfuric acid

4. FIRST AID MEASURES

First aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if you feel unwell. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician immediately.
Ingestion	Rinse mouth. Do NOT induce vomiting. Drink plenty of water or milk immediately.
Skin Contact	Wash off immediately with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms	Causes eye irritation. Causes skin irritation. Inhalation of fumes or acid mist can cause irritation or corrosive burns to the upper respiratory system, including nose, mouth and throat.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Small Fire	Dry chemical.
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Unsuitable Extinguishing Media Avoid using solid water streams near ruptured tanks.

Specific hazards arising from the chemical

Prolonged temperatures above 300 degrees C will eventually evaporate the water and sulfur trioxide will be given off.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Ventilate affected area. No smoking in spill area.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dilute small spills or leaks with plenty of water. If in a confined area, neutralize residue with alkali such as soda ash or lime.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protective equipment as required. Use only in well-ventilated areas. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing vapors or mists.
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Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Protect from freezing. Protect from direct sunlight.

Incompatible materials Contact with reactive metals, such as zinc, will result in the evolution of hydrogen.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Buffered Sulfuric acid	TWA: 0.2 mg/m ³ thoracic fraction	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³	IDLH: 15 mg/m ³ TWA: 1 mg/m ³

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Wear approved safety goggles. Face shield.
- Skin and body protection** Wear protective gloves. (neoprene rubber, Nitrile rubber, polyvinyl chloride, Viton, barrier laminate, or butyl rubber). Rubber apron when handling full strength.
- Respiratory protection** Ensure adequate ventilation, especially in confined areas. Use NIOSH/MSHA approved dust and mist respirator when spraying product.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Characteristic
Appearance	Oily, dark colored liquid	Odor threshold	Not determined
Color	Darkly colored		

Property	Values	Remarks • Method
pH	0.9 concentrate	
Melting point/freezing point	Not available	
Boiling point/boiling range	Not available	
Flash point	Not flammable	
Evaporation rate	Not available	
Flammability (solid, gas)	Not applicable	
Flammability Limits in Air		
Upper flammability limits	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	Not available	
Vapor density	Not available	
Specific Gravity	1.0-1.15	
Water solubility	completely soluble	
Solubility in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	Not applicable	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	

Explosive properties	Not determined
Oxidizing properties	Not determined

Other Information**10. STABILITY AND REACTIVITY****Reactivity**

Not reactive under normal conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Prolonged temperatures above 300 degrees C will eventually evaporate the water and sulfur trioxide will be given off.

Incompatible materials

Contact with reactive metals, such as zinc, will result in the evolution of hydrogen.

Hazardous Decomposition Products

Prolonged temperatures above 300 degrees C will eventually evaporate the water, and Sulfur Trioxide will be given off.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	Harmful by inhalation.
Eye contact	Causes serious eye damage.
Skin Contact	Causes severe skin burns.
Ingestion	Can cause irritation and corrosive burns to mouth, throat, and stomach.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Buffered Sulfuric acid 7664-93-9	2140 mg/kg (Rat)	-	347 ppm (Rat) 1 h 510 mg/m ³ (Rat) 2 h

Information on physical, chemical and toxicological effects

Symptoms Inhalation of fumes or acid mist can cause irritation or corrosive burns to the upper respiratory system, including nose, mouth and throat.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Note: The agencies below have listed Strong Inorganic Acid Mists, Containing Sulfuric Acid as a known carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Buffered Sulfuric acid 7664-93-9	A2	Group 1	Known	X

Numerical measures of toxicity- Product

Not determined

Unknown Acute Toxicity 5% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

- ATEmix (oral) 9302 mg/kg
- ATEmix (inhalation-gas) 1509 mg/l
- ATEmix (inhalation-dust/mist) 2.2 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Buffered Sulfuric acid		>500: 96 h Brachydanio rerio mg/L LC50 static		29: 24 h Daphnia magna mg/L EC50

Persistence and degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined.

Other adverse effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Dispose of in accordance with federal, state and local regulations. Triple rinse with water and dispose of container.

Chemical Name	California Hazardous Waste Status
Buffered Sulfuric acid	Toxic Corrosive

14. TRANSPORT INFORMATION

DOT

- UN/ID No UN1760
- Proper shipping name Corrosive liquid, n.o.s. (Buffered sulfuric acid)
- Hazard Class 8
- Packing Group III

IATA

UN/ID No UN1760
Proper shipping name Corrosive liquid, n.o.s. (Buffered sulfuric acid)
Hazard Class 8
Packing Group III

IMDG

UN/ID No UN1760
Proper shipping name Corrosive liquid, n.o.s. (Buffered sulfuric acid)
Hazard Class 8
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances IECSC
- China Inventory of Existing Chemical Substances KECL -
Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Buffered Sulfuric acid - 7664-93-9	7664-93-9	23	1.0

SARA 311/312 Hazard Categories

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Buffered Sulfuric acid	1000 lb			X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Buffered Sulfuric acid	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

Chemical Name	California Proposition 65
Buffered Sulfuric acid - 7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Buffered Sulfuric acid	X	X	X

U.S. EPA Label Information

16. OTHER INFORMATION

NFPA

Health hazards

Flammability

Instability

Special Hazards Not

Not determined

Not determined

Not determined

determined **Personal**

HMIS

Health hazards

Flammability

Physical hazards

Not

Not determined

Not determined

Not determined

determined

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01-Mar-1996

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12-Nov-2012

Revision Note

new format

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.

End of Safety Data Sheet