



SAFETY DATA SHEET

Issuing Date 01-Apr-2015

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Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name TIGER® Combo

Other means of identification

Synonyms Sulphur, Sulphate

Recommended use of the chemical and restrictions on use

Recommended Use Fertilizer, Plant nutrient fertilizer

Uses advised against No information available

Supplier's details

Supplier Address

Tiger-Sul Products, LLC.
2 Corporate Drive, Suite 545 Shelton,
CT 06484
Phone: (203) 682-9200
Fax:(203) 227-8351

Tiger-Sul (Canada) Co.
P.O. Box 126
275137 Range Road 263
Irricana, AB Canada T0M 1B0
TEL: 403-935-4197
Toll Free: 877-299-3399
Fax: 403-935-0112

Manufacturer Address

Tiger-Sul Products, LLC.
65 Stork Road
Stockton, CA 95203
TEL: 209-943-0478
Fax: 209-943-5470

Tiger-Sul Products, LLC.
25 Byrne Drive
PO Box 5
Atmore, AL 36502
TEL: 251-202-3850
Toll Free: 800-239-3647

Emergency telephone number

Emergency Telephone Number 800-239-3647
CHEMTREC: (800) 424-9300 – 24 hours

2. HAZARDS IDENTIFICATION


Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Combustible Dust	Yes

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word	Warning	
Hazard Statements	<ul style="list-style-type: none"> • Causes skin irritation • May form combustible dust concentrations in air 	
		
Appearance	Greenish-tan	Physical State Solid (compressed).
		Odor None

Precautionary Statements**Prevention**

- Wash face, hands and any exposed skin thoroughly after handling.
- Wear protective gloves.

General Advice

- Specific treatment (see supplemental instructions on the administration of antidotes on this label)

Skin

- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation occurs: Get medical advice/attention.
- Take off contaminated clothing and wash before reuse.

Storage

- None

Disposal

- None

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

May be harmful if swallowed. May be harmful in contact with skin. May cause irritation of respiratory tract. Powdered material may form explosive dust-air mixtures.

Harmful to aquatic life Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Sulphur, Sulphate

Chemical Name	CAS-No	Weight %
Ammonium sulfate	7783-20-2	60
Sulfur	7704-34-9	36
Bentonite	1302-78-9	4

4. FIRST AID MEASURES

Description of necessary first-aid measures**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.

Skin Contact	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician.
Inhalation	Move to fresh air. Get medical attention if symptoms occur.
Ingestion	Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

Most important symptoms/effects, acute and delayed**Most Important Symptoms/Effects** Dermal irritation.**Indication of immediate medical attention and special treatment needed, if necessary****Notes to Physician** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**Water spray or fog is preferred; if water not available use dry chemical, CO₂ or regular foam. Small fires may be smothered with sand.**Unsuitable Extinguishing Media** Do not scatter spilled material with high pressure water streams.**Specific Hazards Arising from the Chemical**

Avoid dust formation. Dust suspended in air is readily ignited by flames, static electricity or friction spark. Every reasonable step must be taken to minimize dust formation. Sulfur dioxide reacts with water to form sulfuric acid.

Explosion Data**Sensitivity to Mechanical Impact**

None.

Sensitivity to Static Discharge

Yes.

Protective Equipment and Precautions for Firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions** Ensure adequate ventilation. Avoid dust formation. Avoid contact with the skin and the eyes. Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Wash thoroughly after handling.**Environmental Precautions****Environmental Precautions** Do not allow material to contaminate ground water system.**Methods and materials for containment and cleaning up****Methods for Containment** Prevent further leakage or spillage if safe to do so.**Methods for Cleaning Up** Pick up and transfer to properly labeled containers.**7. HANDLING AND STORAGE****Precautions for safe handling**

Handling Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid dust formation in confined areas. Keep away from open flames, hot surfaces and sources of ignition. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Dust tight castings should be equipped with explosion relief vents. Sparkles electrical equipment is recommended.

Conditions for safe storage, including any incompatibilities

Storage Keep in a dry, cool and well-ventilated place.

Incompatible Products Incompatible with oxidizing agents; Acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Bentonite 1302-78-9	TWA: 1 mg/m ³ respirable fraction	-	-

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.
Skin and Body Protection Long sleeved clothing. Impervious gloves.
Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid (compressed)	Appearance	Greenish-tan
Odor	None	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	None known
Melting Point/Range	119 °C	None known
Boiling Point/Boiling Range	444 °C	None known
Flash Point	188 °C	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Specific Gravity	No data available	None known
Water Solubility	Partly soluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known

Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Flammable Properties	Not flammable	
Explosive Properties	No data available	
Oxidizing Properties	No data available	
<u>Other information</u>		
VOC Content (%)	No data available	

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.
Fine dust dispersed in air may ignite.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Dust formation. Exposure to air or moisture.

Incompatible materials

Incompatible with oxidizing agents; Acids.

Hazardous decomposition products

Sulfur dioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye Contact	May cause irritation.
Skin Contact	Causes skin irritation. May be harmful in contact with skin.
Ingestion	May be harmful if swallowed. May cause irritation to the gastrointestinal tract.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available.

Mutagenic Effects No information available.
Carcinogenicity Contains no ingredients above reportable quantities listed as a carcinogen.

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organ Effects Skin. Eyes.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product

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

LD50 Oral 2174 mg/kg; Acute toxicity estimate
LD50 Dermal 3056 mg/kg; Acute toxicity estimate
Inhalation
dust/mist 17.4 mg/L; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ammonium sulfate 7783-20-2		LC50 96 h: 123-128 mg/L semi-static (Poecilia reticulata) LC50 96 h: 32.2-41.9 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: 460 - 1000 mg/L static (Leuciscus idus) LC50 96 h: 5.2-8.2 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 126 mg/L (Poecilia reticulata) LC50 96 h: = 18 mg/L (Cyprinus carpio) LC50 96 h: = 250 mg/L (Brachydanio rerio) LC50 96 h: = 420 mg/L semi-static (Brachydanio rerio) LC50 96 h: = 480 mg/L flow-through (Brachydanio rerio) LC50 96 h: > 100 mg/L (Pimephales promelas)		LC50 48 h: = 14 mg/L (Daphnia magna) EC50 24 h: = 423 mg/L (Daphnia magna)
Sulfur 7704-34-9	-	LC50: 866 mg/L Brachydanio rerio 96 h static LC50: <14 mg/L Lepomis macrochirus 96 h static LC50: >180 mg/L Oncorhynchus mykiss 96 h static	-	-
Bentonite 1302-78-9		LC50 96 h: 8.0-19.0 g/L (Salmo gairdneri) LC50 96 h: = 19000 mg/L static (Oncorhynchus mykiss)		

Persistence and Degradability No information available.

Bioaccumulation

Chemical Name	Log Pow
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Ammonium sulfate	-5.1
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Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

Not regulated

15. REGULATORY INFORMATION

International Inventories**TSCA**

All components of this product are either listed or are exempt on the TSCA inventory.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Ammonium sulfate	7783-20-2	60	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Ammonium sulfate		X	X		X
Sulfur	X	X	X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard 1	Flammability 1	Instability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 1	Flammability 1	Physical Hazard 0	Personal Protection X

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General 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. Resources include tests, research data, and reports believed to be credible. No guarantee is made as to accuracy or completeness. Therefore, the user assumes all risks involving the use of the product.

End of Safety Data Sheet