

**AMMONIUM SULFATE-GRAN-TREATED**

Version 2

Revision Date 08/18/2011

Print Date 10/31/2013

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : SULF-N® Ammonium Sulfate  
MSDS Number : 000000011568  
Product Use Description : Fertilizer

Company : Honeywell International, Inc.  
101 Columbia Road  
Morristown, NJ 07962-1057

For more information call : 1-888-245-4738  
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-651-523-0309**  
: **Transportation: 1-800-424-9300 or +1-703-527-3887**  
: (24 hours/day, 7 days/week)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Form : granules  
Color : colourless to brown  
Odor : odourless  
Hazard Summary : Product dust may be irritating to eyes, skin and respiratory system. Vapour during processing may be irritating to the respiratory tract and to the eyes. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Avoid dust formation.

**Potential Health Effects**

Skin : May irritate skin.  
Prolonged or repeated contact may dry skin and cause irritation.  
Eyes : May cause mechanical irritation.  
Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.  
Inhalation : Product dust may be irritating to eyes, skin and respiratory system.

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Chronic Exposure : None known.

Aggravated Medical Condition : None known.

**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No.	Concentration
Ammonium sulfate	7783-20-2	>98.50 %

**SECTION 4. FIRST AID MEASURES**

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Get medical attention if irritation develops and persists.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Get medical attention if irritation develops and persists.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion : Induce vomiting, but only if victim is fully conscious. Never give anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. Call a physician.

**Notes to physician**

Treatment : Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES**

Flash point : not applicable

Lower explosion limit : not applicable

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- Upper explosion limit : not applicable
- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during fire fighting : Container may rupture on heating.  
Cool closed containers exposed to fire with water spray.  
Do not allow run-off from fire fighting to enter drains or water courses.  
Explosive reactions with oxidising agents such as potassium chlorate and/or peroxides.  
In case of fire hazardous decomposition products may be produced such as:  
Sulphur oxides  
Ammonia  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)
- Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes.  
In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Wear personal protective equipment. Unprotected persons must be kept away.  
Evacuate personnel to safe areas.  
Keep people away from and upwind of spill/leak.  
Remove all sources of ignition.  
Provide adequate ventilation.  
Avoid dust formation.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
Do not let product enter drains.
- Methods for cleaning up : Use mechanical handling equipment.  
Clean contaminated surface thoroughly.  
Pick up and arrange disposal without creating dust.  
Use a suitable vacuum cleaner.

**SECTION 7. HANDLING AND STORAGE****Handling**



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Handling : Handle with care.  
Wear personal protective equipment.  
Use only in well-ventilated areas.  
Avoid dust formation.  
Provide exhaust ventilation if dust is formed.  
Dust must be extracted directly at the point of origin.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

**Storage**

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.  
Containers should be protected against falling down.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store away from incompatible substances.

Further information on storage conditions : Ensure adequate ventilation.

Advice on common storage : Do not store together with:  
Oxidizing agents

Storage temperature : < 280 °C (< 536 °F)

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.  
Avoid dust formation.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.  
Wash thoroughly after handling.

Engineering measures : Provide exhaust ventilation if dust is formed.  
Dust must be extracted directly at the point of origin.  
Apply technical measures to comply with the occupational exposure limits.

Eye protection : Do not wear contact lenses.  
Wear as appropriate:  
Safety glasses with side-shields

Hand protection : Gloves

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Gloves must be inspected prior to use.  
Replace when worn.

Skin and body protection : Long sleeved clothing

Respiratory protection : Use NIOSH approved respiratory protection.

Hygiene measures : Wash hands before breaks and at the end of workday.  
Remove and wash contaminated clothing before re-use.  
Keep working clothes separately.

**Exposure Guidelines**

Particulates Not  
Otherwise Regulated

ACGIH TWA 3 mg/m3

Form of exposure Respirable particles.

ACGIH TWA 10 mg/m3

Form of exposure Inhalable particles.

OSHA Z1 PEL 15 mg/m3

Form of exposure Total dust.

All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.

OSHA Z1 PEL 5 mg/m3

Form of exposure Respirable fraction.

All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.

OSHA Z1A TWA 15 mg/m3

Form of exposure Total dust.

OSHA Z1A TWA 5 mg/m3

Form of exposure Respirable fraction.

Z3 TWA 15 mg/m3

Form of exposure Total dust.

Z3 TWA 5 mg/m3

Form of exposure Respirable fraction.

Z3 TWA 50 millions of particles

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Form of exposure	Total dust.	per cubic foot of air
Z3	TWA	15 millions of particles
Form of exposure	Respirable fraction.	per cubic foot of air

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: granules
Color	: colourless to brown
Odor	: odourless
Molecular Weight	: 132.14 g/mol
pH	: 5.5
Melting point/range	: no data available
Boiling point/boiling range	: not applicable
Vapor pressure	: not applicable
Density	: 1.77 g/cm <sup>3</sup>
Water solubility	: 410 - 750 g/l at 20 - 25 °C (68 - 77 °F)

**SECTION 10. STABILITY AND REACTIVITY**

Materials to avoid	: oxidising substances Zinc Copper copper-bearing materials
Hazardous decomposition products	: Sulphur oxides Ammonia Carbon dioxide (CO <sub>2</sub> ) Carbon monoxide
Hazardous reactions	: Hazardous polymerisation does not occur. Stable under recommended storage conditions.



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**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD50: 3,000 mg/kg  
Species: rat

Skin irritation : Species: rabbit  
Note: slight irritation

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish : LC50: > 460 mg/l  
Exposure time: 96 h  
Species: Leuciscus idus (Golden orfe)

Toxicity to daphnia and other : LC50: 423 mg/l  
aquatic invertebrates. Exposure time: 25 h  
Species: Daphnia magna (Water flea)

: LC50: 433 mg/l  
Exposure time: 50 h  
Species: Daphnia magna (Water flea)

: LC50: 292 mg/l  
Exposure time: 100 h  
Species: Daphnia magna (Water flea)

**Further information on ecology****SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Information: Observe all Federal, State, and Local Environmental regulations.

**SECTION 14. TRANSPORT INFORMATION**

**DOT** Not dangerous goods

**TDG** Not dangerous goods

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**IATA** Not dangerous goods**IMDG** Not dangerous goods**SECTION 15. REGULATORY INFORMATION****Inventories**US. Toxic Substances : On TSCA Inventory  
Control ActAustralia. Industrial : On the inventory, or in compliance with the inventory  
Chemical (Notification and  
Assessment) ActCanada. Canadian : All components of this product are on the Canadian DSL list.  
Environmental Protection  
Act (CEPA). Domestic  
Substances List (DSL).  
(Can. Gaz. Part II, Vol. 144)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals : On the inventory, or in compliance with the inventory  
Inventory (KECI)Philippines. The Toxic : On the inventory, or in compliance with the inventory  
Substances and Hazardous  
and Nuclear Waste Control  
ActChina. Inventory of Existing : On the inventory, or in compliance with the inventory  
Chemical Substances**National regulatory information****SARA 313 Components** : Ammonium sulfate 7783-20-2**SARA 311/312 Hazards** : Acute Health Hazard



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**California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**Massachusetts RTK** : Ammonium sulfate 7783-20-2

**New Jersey RTK** : Ammonium sulfate 7783-20-2

**Pennsylvania RTK** : Ammonium sulfate 7783-20-2

**WHMIS Classification** : Not Rated  
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**SECTION 16. OTHER INFORMATION**

	<b>HMIS III</b>	<b>NFPA</b>
Health hazard	: 1	1
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0