

# Material Safety Data Sheet

Health	1
Fire	0
Reactivity	2
Personal Protection	E

## AMMONIUM SULFATE

Date of Issue: January 1st, 2012

### 1. PRODUCT IDENTIFICATION

**Synonyms:** Ammonium iron sulfate; ammonium ferrous sulfate; ferrous ammonium sulfate, hexahydrate

**CAS NO:** 7783-20-2

**Chemical Formula:** (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>

**Supplier of MSDS:** SandsoftheDesert.com PO BOX 595  
Fairland, OK 74343 (918) 708-1810

**Emergency Number:** CHEMTREC 1-800-424-9300  
International CHEMTREC 1-703-527-3887

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredient:** Ferrous Ammonium Sulfate

**Percent:** 90-100%

### 3. HAZARDS IDENTIFICATION

**GHS-US: Hazardous:** Not Classified

**Health Rating:** 1 (Slight)

**Flammability Rating:** 0 (None)

**Reactivity Rating:** 2 (Moderate)

**Lab Protective Equip:** Dust mask with filter type P2. Gloves. Safety glasses.

**Storage Color Code:** Green (General Storage)

### POTENTIAL HEALTH EFFECTS

**Inhalation:** Causes irritation to the respiratory tract. Symptoms include coughing, shortness of breath.

**Ingestion:** Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea. Low toxicity in small quantities but larger dosages may cause nausea, vomiting, diarrhea, and black stool. Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma, and death from iron poisoning has been recorded.

**Skin Contact:** Causes irritation to skin. Symptoms include redness, itching, and pain.

**Eye Contact:** Causes irritation, redness, and pain.

**Chronic Exposure:** No information found.

**Aggravation of Pre-existing Conditions:** Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

#### **4. FIRST AID MEASURES**

**After inhalation:** Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

**After skin contact:** Rinse with water. Soap may be used. Take victim to a doctor if irritation persists. Wash skin with plenty of water.

**After eye contact:** Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists. Rinse eyes with water as a precaution.

**After ingestion:** Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities go immediately to hospital.

#### **5. FIRE FIGHTING MEASURES**

**Fire:** Not considered to be a fire hazard. Irritating and toxic ammonia gas may form in fires.

**Explosion:** Not considered to be an explosion hazard. Sealed containers may rupture when heated.

**Fire Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

**Special Information:** Use protective clothing & breathing equipment appropriate for the surrounding fire.

#### **6. ACCIDENTAL RELEASE MEASURES**

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

#### **7. HANDLING AND STORAGE**

Keep in a tightly closed light-resistant container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product

residues (dust, solids); observe all warnings and precautions listed for the product. Avoid raising dust. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**DNEL:**  $\leq 42.667$  mg/l mg/kg bodyweight/day Long-term systemic effects, dermal

**PNEC:**  $\leq 0.312$  mg/l aqua, freshwater

**Ventilation System:** Ensure good ventilation of the work station. Extraction to remove dust at its source.

**Personal Protection:** Protective clothing. Dust mask (w/ filter type P2). Gloves. Safety glasses.

**Eye Protection:** Safety glasses. In case of dust production: protective goggles. Safety glasses.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Pale blue-green crystals.

**Odor:** Odorless.

**Solubility:** Soluble in water. Water: 77 g/100ml

**Specific Gravity:** 1770 kg/m<sup>3</sup>

**PH:** 5.5 (1.3 %)

**Percent Volatiles by volume at 21C (70F):** 0

**Boiling Point:** Not applicable.

**Flash Point:** Not applicable.

**Melting Point:** 280 °C

**Vapor Pressure:** 0.000405 mPa

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under ordinary conditions of use and storage. Slowly oxidizes in moist air.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Sulfuric acid

**Conditions to Avoid:** Heat, light, moisture.

**Hazardous Decomposition Products:** May emit ammonia, oxides of sulfur, oxides of nitrogen, and oxides of carbon.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:** Not classified

**Skin corrosion/irritation:** Not classified

**Serious eye damage/irritation:** Not classified

**Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity:** Not classified

**Reproductive toxicity:** Not classified

**Specific target organ toxicity (single exposure):** Not classified

**Specific target organ toxicity (repeated exposure):** Not classified

**Aspiration hazard:** Not classified

**Symptoms/injuries after inhalation:** AFTER INHALATION OF DUST: Dry/sore throat. Coughing.  
ON CONTINUOUS EXPOSURE/CONTACT: Irritation of the respiratory tract.

**Symptoms/injuries after skin contact:** Red skin. Slight irritation.

**Symptoms/injuries after eye contact:** Slight irritation.

**Symptoms/injuries after ingestion:** Vomiting. Nausea. Diarrhoea.

## 12. ECOLOGICAL INFORMATION

**Ecology – general:** The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

**Ecology – air:** Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

**Ecology – water:** Mild water pollutant (surface water). Maximum concentration in drinking water: 0.50 mg/l (ammonium) (Directive 98/83/EC); 250 mg/l (sulfate) (Directive 98/83/EC). Slightly harmful to fishes (LC50(96h) 100-1000 mg/l). Slightly harmful to invertebrates (EC50: 100 - 1000 mg/l). May cause eutrophication. Insufficient data available on ecotoxicity.

## 13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. TRANSPORT INFORMATION

Not regulated.

## 15. REGULATORY INFORMATION

**TSCA:** CAS 7783-20-2 is listed on the TSCA inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) 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.

**Listed on the Canadian DSL (Domestic Substances List) inventory.**

**Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.**

**Listed on the AICS (the Australian Inventory of Chemical Substances)**

**Listed on Inventory of Existing Chemical Substances (IECSC)**

**Listed on the Korean ECL (Existing Chemical List) inventory.**

**Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory. Listed on INSQ (Mexican national Inventory of Chemical Substances)**

**Listed on New Zealand - Inventory of Chemicals (NZIoC)**

**Listed on Inventory of Chemicals and Chemical Substances (PICCS)**

**U.S. - Massachusetts - Right To Know List**

**U.S. - New Jersey - Right to Know Hazardous Substance List**

**U.S. - Pennsylvania - RTK (Right to Know) List**

## **16. OTHER INFORMATION**

**NFPA Ratings:** Health 1; Flammability 0; Reactivity 2

### **!!! DISCLAIMERS AND WARRANTIES OF INFORMATION !!!**

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