**GFS CHEMICALS, INC.**
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# MATERIAL SAFETY DATA SHEET



## AMMONIUM PERCHLORATE

| CHEMICAL NAME & SYNONYMS | DOT CLASS | SARA TITLE 313 |
|---|---|---|
| Ammonium Perchlorate | 5.1/II | No |
| | **TSCA listed** - Yes | |

| FORMULA | REPORTABLE QUANTITY | F.W. | CAS# |
|---|---|---|---|
| $NH_4ClO_4$ | N/A | 117.50 | 7790-98-9 |

**PHYSICAL DATA**
Refractory index 1.482; Density 1.95; Decomposes prior to melting 270-300°C; Water solubility 20.8 g/100 ml @ 20°C.

**APPEARANCE & ODOR**
White crystalline powder and granules. Odorless.

**REACTIVITY & CONDITIONS TO AVOID**
Oxidant, shock sensitive when fine powder (requires considerable shock). Mixtures with reducing agents, organic compounds, or strong mineral acids pose hazards of fire or explosion.

**FIRE HAZARDS**
May cause fire or explosion with organic matter, powdered metals, or other fuels when heated. May decompose explosively under general fire conditions. Firefighters wear SCBA. NFPA # 2-0-3.

| EXTINGUISHER | FLASHPOINT | LEL | UEL |
|---|---|---|---|
| Water Spray. | N/A | N/A | N/A |

**HEALTH HAZARDS**
Irritating to eyes and mucous membranes. Toxicity $LD_{50}$ (oral-rat) 3700 mg/kg. Perchlorate ion has a significant reversible effect on human thyroid by inhibition of thyroid iodine transport. Studies on workers in plants where perchlorate salts are manufactured have shown no thyroid abnormalities. Thyroid effects on humans continues to be studied. Overdoses or chronic intake may also affect kidneys. Particulates: OSHA PEL:TWA 15 $mg/m^3$ (total dust), 5 $mg/m^3$ (respirable fraction)/ACGIH TLV: TWA 10 $mg/m^3$ (inhalable dust); 3 $mg/m^3$ (respirable dust). No evidence of carcinogenicity.

**SPECIAL PRECAUTIONS**
Use eye protection and rubber gloves while handling. Use ventilation or suit-able respirator to avoid inhalation. Avoid accumulation of dusts. Drench shower in area. Store away from organic materials.

**FIRST AID**
Wash skin and eyes well with water after contact. If swallowed, give water and get medical attention. Do not give anything by mouth to an unconscious person.

**SPILLS & LEAKS**
Sweep up spills, minimizing dust formation and flush well with water. Disposal to drain for small quantities, check local regulations. Larger amounts must be disposed as hazardous waste (oxidizer).

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| CATALOG # | PREPARED BY | DATE |
|---|---|---|
| 3 | MDM | May 23, 2005 |