

GFS CHEMICALS, INC.

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MATERIAL SAFETY DATA SHEET

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AMMONIUM PERCHLORATE

CHEMICAL NAME & SYNONYMS

Ammonium Perchlorate

DOT CLASS

5.1/II

SARA TITLE 313

No

TSCA listed - Yes

FORMULA

NH₄ClO₄

REPORTABLE QUANTITY

N/A

F.W.

117.50

CAS#

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

Water Spray.

FLASHPOINT

N/A

LEL

N/A

UEL

N/A

HEALTH HAZARDS

Irritating to eyes and mucous membranes. Toxicity LD₅₀ (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/m³ (total dust), 5 mg/m³ (respirable fraction)/ACGIH TLV: TWA 10 mg/m³ (inhalable dust); 3 mg/m³ (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).

CATALOG #

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PREPARED BY

MDM

DATE

May 23, 2005