

Nickel (II) Ammonium Sulfate Hexahydrate
MSDS# 16427

Section 1 - Chemical Product and Company Identification

MSDS Name:

Nickel (II) Ammonium Sulfate Hexahydrate

Catalog Numbers:

A/5800/50, A/5800/53, A/5840/48, A/5840/53

Synonyms:

Nickel ammonium sulfate; ammonium nickel sulfate hexahydrate;
sulfuric acid ammonium nickel(2+) salt(2:2:1); nickelous ammonium su

Company Identification: Fisher Scientific UK

Bishop Meadow Road, Loughborough

Leics. LE11 5RG

For information in Europe, call: (01509) 231166

Emergency Number, Europe:

01509 231166

Section 2 - Composition, Information on Ingredients

CAS#: 7785-20-8

Chemical Name: Nickel (II) ammonium sulfate hexahydrate

%: 100

EINECS#: unlisted

Hazard Symbols:

XN

Risk Phrases:

22 40 42/43

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful if swallowed. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact.

Potential Health Effects

Eye:

Causes eye irritation.

Skin:

Causes skin irritation. May cause severe irritation and possible burns. May cause dermatitis.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation:

Causes respiratory tract irritation. May cause allergic respiratory reaction.

Chronic:

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling:

Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

CAS# 7785-20-8:

United States OSHA: 1 mg/m³ TWA (as Ni) (Nickel soluble compounds).

Belgium - TWA: (nickel soluble compounds): 0.1 mg/m³ VLE (as Ni)

Malaysia: (nickel soluble compounds): 0.1 mg/m³ TWA (inhalable fraction, as Ni)

Netherlands: (nickel soluble compounds): 0.1 mg/m³ MAC (as Ni)

Spain: (nickel soluble compounds): 0.1 mg/m³ VLA-ED (as Ni)

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: blue-green
Odor: none reported
pH: 4.6 @ 0.1M
Vapor Pressure: Not applicable.
Viscosity: Not applicable.
Boiling Point: Not applicable.
Freezing/Melting Point: Not available
Autoignition Temperature: Not available.
Flash Point: Noncombustible.
Explosion Limits: Lower:Not available
Explosion Limits: Upper:Not available
Decomposition Temperature: Not available
Solubility in water: 10% @20C
Specific Gravity/Density: 1.9
Molecular Formula: H8N2NiO8S.6H2O
Molecular Weight: 395

Section 10 - Stability and Reactivity

Chemical Stability:
Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid:
Incompatible materials, dust generation.

Incompatibilities with Other Materials
Not available

Hazardous Decomposition Products
Oxides of sulfur, nickel oxide, ammonia.

Hazardous Polymerization
Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 7785-20-8: WS6061000
LD50/LC50:
CAS# 7785-20-8: Oral, rat: LD50 = 399 mg/kg;.
Carcinogenicity:
Nickel (II) ammonium sulfate hexahydrate -
California: carcinogen, initial date 5/7/04 (Nickel compounds).
NTP: Known carcinogen (Nickel compounds).
IARC: Group 1 carcinogen (Nickel compounds).

Other:
See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other:
No information available.

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location.
Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

IATA
Shipping Name: Not regulated.
Hazard Class:
UN Number:

Packing Group:
IMO Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:

RID/ADR Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information
European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 22 Harmful if swallowed.
R 40 Limited evidence of a carcinogenic effect.
R 42/43 May cause sensitization by inhalation and skin contact.

Safety Phrases:

S 22 Do not breathe dust.
S 36/37 Wear suitable protective clothing and gloves.

WGK (Water Danger/Protection)

CAS# 7785-20-8: Not available

Canada

US Federal

TSCA

CAS# 7785-20-8 is not on the TSCA Inventory because it is a hydrate.

It is considered to be listed if the CAS number for the anhydrous form in on the

Section 16 - Other Information

MSDS Creation Date:

5/12/1998

Revision #3 Date

10/03/2005

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