Scandium Nitrate Hydrate

sc-258144

Material Safety Data Sheet

Hazard Alert Code Key: EXTREME | HIGH | MODERATE | LOW

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Scandium Nitrate Hydrate

STATEMENT OF HAZARDOUS NATURE

NFPA

SUPPLIER
Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, California 95060
800.457.3801 or 831.457.3800
EMERGENCY
ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SYNONYMS
N3-O9-Sc, Sc(NO3)3.xH2O, "nitric acid, scandium(3+) salt, hydrate", "samarium trinitrate"

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Toxicity</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Body Contact</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW
RISK
Contact with combustible material may cause fire.
Contact with acids liberates toxic gas. Irritating to eyes. Harmful to aquatic organisms.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED
■ Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident.
■ Accidental ingestion of the material may be damaging to the health of the individual.
■ The substance and/or its metabolites may bind to hemoglobin inhibiting normal uptake of oxygen.
This condition, known as "methemoglobinemia", is a form of oxygen starvation (anoxia).

EYE
■ This material can cause eye irritation and damage in some persons.

SKIN
■ The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
■ Skin contact is not thought to have harmful health effects, however the material may still produce health damage following entry through wounds, lesions or abrasions.
■ There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.
■ Open cuts, abraded or irritated skin should not be exposed to this material.
■ Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED
■ Although inhalation is not thought to produce harmful effects, the material may still produce health damage, especially where pre-existing organ (e.g. liver, kidney) damage is evident.
■ There is some evidence to suggest that the material can cause respiratory irritation in some persons.
The body's response to such irritation can cause further lung damage.
■ Exposure to vapors of some rare earth salts can cause sensitivity to heat, itching, and increased sensitivity of smell and taste.
Other effects include inflamed airways and lung, emphysema, regional narrowing of terminal airways and cell changes.
■ Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS
■ Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified using animal models); nevertheless exposure by all routes should be minimized as a matter of course.
Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>scandium(III) nitrate</td>
<td>13465-60-6</td>
<td>&gt;98</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
○ If swallowed do NOT induce vomiting. ○ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

EYE
■ If this product comes in contact with the eyes: ○ Wash out immediately with fresh running water. ○ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

SKIN
■ If skin contact occurs: ○ Immediately remove all contaminated clothing, including footwear ○ Flush skin and hair with running water (and soap if available).

INHALED
○ If dust is inhaled, remove from contaminated area. ○ Encourage patient to blow nose to ensure clear passage of breathing. ○ If irritation or discomfort persists seek medical attention.

NOTES TO PHYSICIAN
■ The toxicity of nitrates and nitrites result from their vasodilating properties and their propensity to form methemoglobin.
■ Most produce a peak effect within 30 minutes.
■ Clinical signs of cyanosis appear before other symptoms because of the dark pigmentation of methemoglobin.
Section 5 - FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Vapour Pressure (mmHG):</th>
<th>Negligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Explosive Limit (%):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Specific Gravity (water=1):</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosive Limit (%):</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

**EXTINGUISHING MEDIA**
- FOR SMALL FIRE:
  - USE FLOODING QUANTITIES OF WATER.
  - DO NOT use dry chemicals, CO₂ or foam.

**FIRE FIGHTING**
- Alert Emergency Responders and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 800 metres in all directions.

**GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS**
- Will not burn but increases intensity of fire.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- Decomposition may produce toxic fumes of: nitrogen oxides (NOₓ), metal oxides.

**FIRE INCOMPATIBILITY**
- Avoid storage with reducing agents.
- Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous.

**PERSONAL PROTECTION**
- Glasses:
  - Full face- shield.
- Gloves:
- Respirator:
  - Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

**MINOR SPILLS**
- Clean up all spills immediately.
- No smoking, naked lights, ignition sources.

**MAJOR SPILLS**
- Clear area of personnel and move upwind.
- Alert Emergency Responders and tell them location and nature of hazard.

Section 7 - HANDLING AND STORAGE

**PROCEDURE FOR HANDLING**
- Avoid personal contact and inhalation of dust, mist or vapors.
- Provide adequate ventilation.

**RECOMMENDED STORAGE METHODS**
- Glass container.
- DO NOT repack. Use containers supplied by manufacturer only.
- For low viscosity materials
  - Drums and jerricans must be of the non-removable head type.
  - Where a can is to be used as an inner package, the can must have a screwed enclosure.

**STORAGE REQUIREMENTS**
- In addition, Goods of Class 5.1, packing group II should be:
  - stored in piles so that
  - the height of the pile does not exceed 1 metre
  - the maximum quantity in a pile or building does not exceed 1000 tonnes unless the area is provided with automatic fire extinguishers
  - the maximum height of a pile does not exceed 3 metres where the room is provided with automatic fire extinguishers or 2 meters if not.
  - the minimum distance between piles is not less than 2 metres where the room is provided with automatic fire extinguishers or 3 meters if not.
  - the minimum distance to walls is not less than 1 metre.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE CONTROLS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Material</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
<th>Peak ppm</th>
<th>Peak mg/m³</th>
<th>TWA F/CC</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country/Region</td>
<td>Standard Type</td>
<td>Substance Description</td>
<td>Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>US - Idaho</td>
<td>Acceptable Maximum Peak Concentrations</td>
<td>Scandium(III) nitrate (Lead and its inorganic compounds)</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada - Ontario Occupational Exposure Limits</td>
<td>Scandium(III) nitrate (Elemental lead, inorganic and organic compounds of lead, as Pb except tetraethyl lead / Plomb élémentaire, composés inorganiques et organiques du plomb, en Pb, sauf le plomb tétraéthylé)</td>
<td>0.05</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)</td>
<td>Scandium(III) nitrate (BORON AND COMPOUNDS)</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US - Oregon Permissible Exposure Limits (Z-3)</td>
<td>Scandium(III) nitrate (Inert or Nuisance Dust: (d) Total dust)</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US OSHA Permissible Exposure Levels (PELs) - Table Z3</td>
<td>Scandium(III) nitrate (Inert or Nuisance Dust: (d) Respirable fraction)</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US OSHA Permissible Exposure Levels (PELs) - Table Z3</td>
<td>Scandium(III) nitrate (Inert or Nuisance Dust: (d) Total dust)</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US - Hawaii Air Contaminant Limits</td>
<td>Scandium(III) nitrate (Particulates not otherwise regulated - Total dust)</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US - Hawaii Air Contaminant Limits</td>
<td>Scandium(III) nitrate (Particulates not otherwise regulated - Respirable fraction)</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US - Oregon Permissible Exposure Limits (Z-3)</td>
<td>Scandium(III) nitrate (Inert or Nuisance Dust:(d) Respirable fraction)</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada - Ontario Occupational Exposure Limits</td>
<td>Scandium(III) nitrate (Particles (Insoluble or Poorly Soluble) Not Otherwise)</td>
<td>10 (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Oregon Permissible Exposure Limits (PELs) are different than the federal limits.
<table>
<thead>
<tr>
<th>Country</th>
<th>Province/Region</th>
<th>Substance Description</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada - British</td>
<td>Columbia</td>
<td>scandium(III) nitrate (Particles (Insoluble or Poorly Soluble) Not Otherwise Classified (PNOC))</td>
<td>10 (N)</td>
</tr>
<tr>
<td>Canada - Ontario</td>
<td></td>
<td>scandium(III) nitrate (Specified (PNOS) / Particules (Insolubles ou peu solubles) non précisées par ailleurs)</td>
<td>3 (R)</td>
</tr>
<tr>
<td>US - Tennessee</td>
<td>Occupational Exposure Limits - Limits For Air Contaminants</td>
<td>scandium(III) nitrate (Particulates not otherwise regulated Respirable fraction)</td>
<td>5</td>
</tr>
<tr>
<td>US - California</td>
<td>Permissible Exposure Limits for Chemical Contaminants</td>
<td>scandium(III) nitrate (Particulates not otherwise regulated Respirable fraction)</td>
<td>5 (n)</td>
</tr>
<tr>
<td>US - Oregon</td>
<td>Permissible Exposure Limits (Z-1)</td>
<td>scandium(III) nitrate (Particulates not otherwise regulated (PNOR) (f) Total Dust)</td>
<td>10</td>
</tr>
<tr>
<td>US - Michigan</td>
<td>Exposure Limits for Air Contaminants</td>
<td>scandium(III) nitrate (Particulates not otherwise regulated, Respirable dust)</td>
<td>5</td>
</tr>
<tr>
<td>US - Oregon</td>
<td>Permissible Exposure Limits (Z-1)</td>
<td>scandium(III) nitrate (Particulates not otherwise regulated (PNOR) (f) Respirable Fraction)</td>
<td>5</td>
</tr>
<tr>
<td>US - Wyoming</td>
<td>Toxic and Hazardous Substances Table Z1 Limits for Air</td>
<td>scandium(III) nitrate (Particulates not otherwise regulated)</td>
<td>5</td>
</tr>
</tbody>
</table>

**Notes:**
- Bold print identifies substances for which the Oregon Permissible Exposure Limits (PELs) are different than the federal Limits. PNOR means “particles not otherwise regulated.”
Contaminants

Canada - Prince Edward Island
Occupational Exposure Limits

(PNOR)(f)-
Respirable fraction

scandium(III) nitrate (Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles)

10

See Appendix B
 current TLV/BEI Book

ENDOELTABLE

PERSONAL PROTECTION

RESPIRATOR


EYE

• Chemical goggles.
• Full face shield.

HANDS/FEET

■ Wear chemical protective gloves, eg. PVC.
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:
• frequency and duration of contact,
• chemical resistance of glove material,
• glove thickness and
dexterity
Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).
• When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
• When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
• Contaminated gloves should be replaced.
Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
• DO NOT wear cotton or cotton-backed gloves.
• DO NOT wear leather gloves.
• Promptly hose all spills off leather shoes or boots or ensure that such footwear is protected with PVC over-shoes.

OTHER

• Overalls.
• PVC Apron.
• Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
• For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

ENGINEERING CONTROLS

■ Local exhaust ventilation usually required. If risk of overexposure exists, wear an approved respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Solid.
Mixes with water.
Contact with acids liberates toxic gas.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>230.97</td>
</tr>
<tr>
<td>Divided solid</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Solubility in water (g/L)</td>
<td>Miscible</td>
</tr>
<tr>
<td>pH (1% solution)</td>
<td>Not available</td>
</tr>
<tr>
<td>pH (as supplied)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Pressure (mmHG)</td>
<td>Negligible</td>
</tr>
</tbody>
</table>
Lanthanoids generally are not felt to be fibrogenic because of their high density can produce significant abnormalities on chest X-rays but t...
Based on the available toxicity data, the rare earth chlorides appear to have moderate acute and chronic toxicity. However, these substances cause severe eye irritation and severe irritation in abraded skin. They are poorly absorbed by the gastrointestinal tract and by unbroken skin but slight liver damage has been demonstrated in subchronic oral toxicity studies at high doses. The literature indicates that chronic inhalation exposure to the rare earth chlorides may cause pneumoconiosis in humans. There are no indications of carcinogenicity in the rare earth chlorides. Mutagenicity studies on these substances have mixed results, but are predominantly negative.

* IUPAC currently recommends the name lanthanoid rather than lanthanide, as the suffix "-ide" generally indicates negative ions whereas the suffix "-oid" indicates similarity to one of the members of the containing family of elements. In the older literature, the name "lanthanon" was often used.

No significant acute toxicological data identified in literature search.

**CARCINOGEN**

<table>
<thead>
<tr>
<th>Lead compounds, organic (NB: Organic lead compounds are metabolized at least in part, to ionic lead both in humans and animals. To the extent that ionic lead, generated from organic lead, is present in the body, it will be expected to exert the toxicities associated with inorganic lead.)</th>
<th>International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**LEAD COMPOUNDS**

<table>
<thead>
<tr>
<th>Lead and lead compounds (oral)</th>
<th>US Air Toxics Hot Spots TSD for Describing Available Cancer Potency Factors</th>
<th>IARC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2B</td>
</tr>
</tbody>
</table>

**ORGANIC LEAD COMPOUNDS**

<table>
<thead>
<tr>
<th>Lead and lead compounds (oral)</th>
<th>US Air Toxics Hot Spots TSD for Describing Available Cancer Potency Factors</th>
<th>IARC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PBIT_(PERS~US - Maine Chemicals of High Concern List**

<table>
<thead>
<tr>
<th>Carcinogen</th>
<th>CA Prop 65; IARC; NTP 11th ROC</th>
</tr>
</thead>
</table>

Section 12 - ECOLOGICAL INFORMATION

Harmful to aquatic organisms. This material and its container must be disposed of as hazardous waste.

**Ecotoxicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
<th>Bioaccumulation</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>scandium(III) nitrate</td>
<td>LOW</td>
<td>No Data Available</td>
<td>LOW</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

**GESAMP/EHS COMPOSITE LIST - GESAMP Hazard Profiles**

Name / EHS TRN A1a A1b A1 A2 B1 B2 C1 C2 D1 D2 D3 E1 E2 E3 Gas No / RTECS No

Legend: EHS=EHS Number (EHS=GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships) NRT=Net Register Tonnage, A1a=Bioaccumulation log Pow, A1b=Bioaccumulation BCF, A1=Bioaccumulation, A2=Biodegradation, B1=Acute aquatic toxicity LC50/EC50 (mg/l), B2=Chronic aquatic toxicity NOEC (mg/l), C1=Acute mammalian oral toxicity LD50 (mg/kg), C2=Acute mammalian dermal toxicity LD50 (mg/kg), C3=Acute mammalian inhalation toxicity LC50 (mg/kg), D1=Skin irritation & corrosion, D2=Eye irritation & corrosion, D3=Long-term health effects, E1=Tainting, E2=Physical effects on wildlife & benthic habitats, E3=Interference with coastal amenities, For column A2: R=Readily biodegradable, NR=Not readily biodegradable. For column D3: C=Carcinogen, M=Mutagenic, R=Reprotoxic, S=Sensitising, A=Aspiration hazard, T=Target organ systemic toxicity, L=Leukemia, N=Neurotoxic, I=Immunotoxic. For column E1: NT=Not tainting (tested), T=Tainting test positive. For column E2: Fp=Persistent floater, F=Floater, S=Sinking substances. The numerical scales start from 0 (no hazard), while higher numbers reflect increasing hazard. (GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships)

Section 13 - DISPOSAL CONSIDERATIONS

**US EPA Waste Number & Descriptions**

A. General Product Information

Ignitability characteristic: use EPA hazardous waste number D001 (waste code I)
Reactivity characteristic: use EPA hazardous waste number D003 (waste code R).

**Disposal Instructions**

All waste must be handled in accordance with local, state and federal regulations.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reducing
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

For small quantities:

- Carefully make a 5% of the solution in water or dilute acid controlling any vigorous exotherm or fumes by rate of addition and cooling.

For small quantities of oxidizing agent:

- Cautiously acidify a 3% solution to pH 2 with sulfuric acid.
- Gradually add a 50% excess of sodium bisulfite solution with stirring.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult Waste Management Authority for disposal.

**Section 14 - TRANSPORTATION INFORMATION**

**DOT:**
- Symbols: None
- Hazard class or Division: 5.1
- Identification Numbers: UN1477 PG: II
- Label Codes: 5.1 Special provisions: IB8, IP2, IP4, T3, TP33
- Packaging: Exceptions: 152
  - Packaging: Non-bulk: 212
  - Quantity limitations: 5 kg
- Passenger aircraft/rail:
  - Quantity Limitations: Cargo 25 kg
  - Vessel stowage: Location: A
- Vessel stowage: Other: 56, 58
- Hazardous materials descriptions and proper shipping names:
  - Nitrates, inorganic, n.o.s.

**Air Transport IATA:**
- UN/ID Number: 1477
- Packing Group: II
- Special provisions: A3
- Cargo Only
- Packaging Instructions: 562 Maximum Qty/Package: 25 kg
- Passenger and Cargo Passenger and Cargo
- Packaging Instructions: Y544 Maximum Qty/Package: 5 kg
- Passenger and Cargo Limited Quantity Passenger and Cargo Limited Quantity
- Packaging Instructions: 558 Maximum Qty/Package: 2.5 kg
- Shipping Name: NITRATES, INORGANIC, N.O.S.(CONTAINS SCANDIUM(III) NITRATE)

**Maritime Transport IMDG:**
- IMDG Class: 5.1
- IMDG Subrisk: None
- UN Number: 1477
- Packing Group: II
- EMS Number: F-A,S-Q
- Special provisions: None
- Limited Quantities: 1 kg
- Shipping Name: NITRATES, INORGANIC, N.O.S.(contains scandium(III) nitrate)

**Section 15 - REGULATORY INFORMATION**

scandium(III) nitrate (CAS: 13465-60-6, 16999-44-3) is found on the following regulatory lists;
- "Canada Non-Domestic Substances List (NDSL)", "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"

**Section 16 - OTHER INFORMATION**

**LIMITED EVIDENCE**

- Ingestion may produce health damage*.
- May produce discomfort of the respiratory system and skin*.  
  * (limited evidence).

**Ingredients with multiple CAS Nos**

Ingredient Name: CAS scandium(III) nitrate 13465-60-6, 16999-44-3
Reasonable care has been taken in the preparation of this information, but the author makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The author makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

For additional technical information please call our toxicology department on +800 CHEMCALL.

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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Issue Date: Jan-1-2010
Print Date: Aug-4-2011