Material Safety Data Sheet
(-)-Nicotine Tartrate

MSDS# 91396

Section 1 - Chemical Product and Company Identification

MSDS Name: (-)-Nicotine Tartrate
Catalog Numbers: BP2533-1, BP2533-250
Synonyms: Nicotine Acid Tartrate; Nicotine Bitartrate; Nicotine Hydrogen Tartrate.

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 65-31-6
Chemical Name: (-)-Nicotine Tartrate
%: ca 100
EINECS#: 200-607-2

Hazard Symbols: T+

Risk Phrases: 26/27/28

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! May be absorbed through intact skin. Harmful if swallowed. May cause central nervous system effects. May cause adverse reproductive effects based upon animal studies. May cause eye, skin, and respiratory tract irritation. Target Organs: Central nervous system.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. May be absorbed through the skin.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. May cause central nervous system stimulation.
Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.
Chronic: Adverse reproductive effects have been reported in animals. Repeated or prolonged exposure may cause CNS stimulation.

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.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion: Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If
Inhalation: breathing is difficult, give oxygen. Get medical aid.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use water spray, fog or regular foam.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
NFPA Rating: health: 2; flammability: 0; instability: 0;

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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Poison room locked.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-)-Nicotine Tartrate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
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</tbody>
</table>

OSHA Vacated PELs: (-)-Nicotine Tartrate: None listed

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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 protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respirator protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: white  
Odor: Not available  
PH: Not available  
Vapor Pressure: Not available  
Vapor Density: Not available  
Evaporation Rate: Not available  
Viscosity: Not available  
Boiling Point: Not available  
Freezing/Melting Point: 98 deg C (208.40°F)  
Decomposition Temperature: Not available  
Solubility in water: Soluble  
Specific Gravity/Density:  
Molecular Formula: C18H26N2O12.2H2O  
Molecular Weight: 498.44  
Section 10 - Stability and Reactivity  
Chemical Stability: Stable under normal temperatures and pressures.  
Conditions to Avoid: Incompatible materials, dust generation, excess heat, strong oxidants.  
Incompatibilities with Other Materials: Not available  
Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, oxides of nitrogen, carbon dioxide.  
Hazardous Polymerization: Has not been reported.  
Section 11 - Toxicological Information  
LD50/LC50:  
Oral, mouse: LD50 = 65 mg/kg;  
Oral, rat: LD50 = 65 mg/kg;  
Carcinogenicity: (-)-Nicotine Tartrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Other: See actual entry in RTECS for complete information.  
Section 12 - Ecological Information  
Dispose of in a manner consistent with federal, state, and local regulations.  
Section 13 - Disposal Considerations  
Section 14 - Transport Information  
US DOT  
Shipping Name: Please contact Fisher Scientific for shipping information  
Hazard Class:  
UN Number:  
Packing Group:  
Canada TDG  
Shipping Name: Not available  
Hazard Class:  
UN Number:  
Packing Group:  
Section 15 - Regulatory Information  
European/International Regulations  
European Labeling in Accordance with EC Directives  
Hazard Symbols: T+  
Risk Phrases:  
R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
Safety Phrases:
- S 13 Keep away from food, drink and animal feeding stuffs.
- S 28A After contact with skin, wash immediately with plenty of water.
- S 37 Wear suitable gloves.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)
CAS# 65-31-6: Not available

Canada

Canadian WHMIS Classifications: D1B
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 65-31-6 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA
CAS# 65-31-6 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Other Information
MSDS Creation Date: 2/01/2000
Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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