

Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name Nicotine Polacrilex USP (15% Nicotine)
Commercial Name Not available.
Product Use Pharmaceutical
Restrictions On Use Not available.
Product Code 50-3406
Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Acute toxicity (oral, dermal) Cat. 4 Aquatic Chronic Cat. 3
CFR 1910.1200
Signal Word WARNING
Hazard Statement(s) Harmful if swallowed or in contact with skin. Harmful to aquatic life with long lasting effects. May form combustible dust concentrations in air.

Pictogram(s) or Symbol(s)**Precautionary Statement(s):**

Prevention P264- Wash exposed skin thoroughly after handling. P270- Do not eat, drink or smoke when using this product P280: Wear protective gloves/protective clothing/eye protection/face protection. P273: Avoid release to the environment.

Response P301+312: IF SWALLOWED, Call a POISON CENTER or doctor/physician if you feel unwell. P330. Rinse mouth. P302+352: IF ON SKIN: Wash with plenty of soap and water. P312: Call a POISON CENTER or doctor if you feel unwell. P362+P364 Take off contaminated clothing and wash before reuse.

Storage Not available.

Disposal P501 Dispose of contents/containers in accordance with local, regional, national, International regulations.

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Nicotine Polacrilex USP (15% Nicotine)
% By Weight 100
CAS# 96055-45-7
Molecular Weight Not available.
Chemical Formula Not available.
Synonym(s) Nicotine polacrilex, 10% USP (2000700); Nicotine polacrilex, 15% USP (2001020, 2001040, 2001060, 2018000); Cpd 178, Cpd 180; Nicotine Resin, 15016 EP (2001030), 15° Nicotine Polacrilex (2001 090)

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Nicotine Polacrilex USP (15% Nicotine)	96055-45-7	100		

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Section 4: First-Aid Measures

Inhalation	If symptoms are experienced, remove source of contamination or move person to fresh air. If breathing is stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Avoid mouth-to-mouth contact by using mouth guards or shields. Immediately transport victim to an emergency care facility.
Skin Contact	Quickly and gently, blot or brush away excess chemical. Wash gently and thoroughly with water and non-abrasive soap for 15 minutes or until the chemical is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). If irritation persists, repeat flushing. Obtain medical advice immediately. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
Eye Contact	Quickly and gently blot or brush away chemical. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 15 minutes, or until the chemical is removed. Hold the eyelids open during flushing. Obtain medical advice immediately.
Ingestion	Call a POISON CENTER or doctor. Rinse mouth. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting unless directed to do so by medical personnel. If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart, has stopped, cardiopulmonary resuscitation (CPR) immediately. Avoid mouth-to-mouth contact by using mouth guards or shields. Quickly transport victim to an emergency care facility.
Symptoms/Effects	
Acute	Inhalation: Toxic if inhaled. The action of nicotine is rapid either after breathing it, swallowing it, or absorbing it through the skin. Exposure may cause a burning sensation of the mouth and throat, abdominal pain, nausea, vomiting and diarrhea. It may also cause headache, sweating, dizziness, hearing and visual disturbances, confusion, weakness and loss of coordination. The heart may beat irregularly or stop. At high doses, trembling and convulsions, faintness, shortness of breath and collapse may occur which may be followed by death from respiratory failure. Repeated exposures to nicotine can be neurologically addictive. Nicotine has been demonstrated to cause adverse developmental and reproductive effects in laboratory animals. Eye Contact: Contact is irritating to the eyes. Skin Contact: Nicotine is rapidly absorbed through the skin; Harmful in contact with the skin. The fatal adult dose is about 60 mg. Direct contact with the skin may cause irritation. Symptoms of Nicotine toxicity are described above for Inhalation. Ingestion: Harmful if swallowed. Fatal cases of nicotine intoxication have occurred, usually as a result, of accidental or suicidal ingestion of nicotine insecticides. Swallowing may cause yellow staining of the mouth, irritation to the mouth, throat and gastrointestinal tract. Symptoms of Nicotine toxicity are described above for Inhalation exposure.
Delayed	Inhalation: Toxic if inhaled. The action of nicotine is rapid either after breathing it, swallowing it, or absorbing it through the skin. Exposure may cause a burning sensation of the mouth and throat, abdominal pain, nausea, vomiting and diarrhea. It may also cause headache, sweating, dizziness, hearing and visual disturbances, confusion, weakness and loss of coordination. The heart may beat irregularly or stop. At high doses, trembling and convulsions, faintness, shortness of breath and collapse may occur which may be followed by death from respiratory failure. Repeated exposures to nicotine can be neurologically addictive. Nicotine has been demonstrated to cause adverse developmental and reproductive effects in laboratory animals. Eye Contact: Contact is irritating to the eyes. Skin Contact: Nicotine is rapidly absorbed through the skin; Harmful in contact with the skin. The fatal adult dose is about 60 mg. Direct contact with the skin may cause irritation. Symptoms of Nicotine toxicity are described above for Inhalation. Ingestion: Harmful if swallowed. Fatal cases of nicotine intoxication have occurred, usually as a result, of accidental or suicidal ingestion of nicotine insecticides. Swallowing may cause yellow staining of the mouth, irritation to the mouth, throat and gastrointestinal tract. Symptoms of Nicotine toxicity are described above for Inhalation exposure.
Immediate Medical Attention	Get medical attention if inhaled, swallowed or in contact with skin.

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Carbon dioxide, dry chemical powder, foam, water fog or fine spray. Use water spray to cool fire-exposed containers.

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Unsuitable Extinguishing Media

Forceful waterjet.

Products of Combustion

During a fire, products of combustion may include nicotine, nitrogen oxides, carbon monoxide, carbon dioxide and other unidentified irritating and toxic gases and fumes. This material can burn if involved in a fire. A similar substance demonstrated a minimum ignition energy of 25 - 50 mJ. As with any organic material, high organic dust concentrations in air, may present an explosion hazard when exposed to ignition sources. Refer to NFPA 652 for guidance on identifying and managing the fire and explosion hazards of combustible dusts and particulate solids.

Firefighters Special Equipment and Precautions

Evacuate the area and fight the fire from a safe distance. Firefighters must wear full protective clothing and an approved, self-contained breathing apparatus which supplies a positive air pressure within a full face-piece mask. Do not enter without wearing specialized equipment suitable for the situation. Do not allow water run-off to enter sewers or watercourses.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Isolate the area; keep all unprotected people away from the spill area. Wear all proper personal protective equipment including a self-contained breathing apparatus, rubber boots and heavy rubber gloves. Prevent inhalation exposures, skin and possible eye contact. Ventilate area. Extinguish or remove all ignition sources. Ensure clean-up is conducted by trained personnel only. Do not touch the spilled material. Environmental precautions: Prevent material from contaminating soil and from entering drainage system, surface or groundwater. Methods and material for containment and cleaning up: Isolate the spill area. Stop the spill immediately if it is safe to do so. Vacuum spilled material or scoop it into a suitable container. Clean the area and working surfaces with acidified water (pH=3). Place contaminated clothing in a plastic bag and send for laundering. Inform the laundry personnel about the contamination and its hazardous properties. Use methods to clean the spill that avoid raising dust into the air. Follow safety procedures for cleaning spills of hazardous materials. Do not reenter the contaminated area until the Safety Officer (or other responsible person) has verified that the area has been properly cleaned.

Section 7: Handling and Storage

Precautions for safe handling: Avoid generation of dusts from this product. Avoid breathing dust/fume or vapors. Wear protective gloves, clothing and other equipment required for the workplace. Do not use with incompatible materials such as strong oxidizing agents. Wash exposed skin thoroughly with detergent and water, immediately after exposure to product and at the end of the work-shift. Do not eat, drink or smoke when using this product. Maintain clean workplace to prevent accumulation of powders and dust on surfaces. Prevent dust explosions; provide appropriate bonding and grounding. Refer to appropriate standards of practice for prevention of dust explosions, e.g. NFPA 652 (Standard on the Fundamentals of Combustible Dust). Conditions for safe storage, including any incompatibilities: Store at USP controlled room temperature (20 - 25°C). Store in a dry area, out of direct sunlight and away from strong oxidizing agents and excessive heat. Keep containers tightly closed when not in use

Section 8: Exposure Controls/Personal Protection

Exposure Limits	ACGIH TLV 0.5 mg/m ³ TWA Skin Skin; 1.5 mg/m ³ STEL	U.S. OSHA PEL 0,5 mg/m ³ Skin EU PEL 0.5 mg/m ³ TWA
Engineering Controls	Closed handling systems are preferred. Use process enclosures, local exhaust ventilation or other engineering controls to minimize sources of airborne dusts. Personal Protective Equipment (PRE) should be used as back-up protection to engineering controls.	

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Personal Protection

Personal protection: Workers must comply with the Personal Protective Equipment requirements of the workplace in which this product is handled. Eye/Face protection: Wear safety glasses with side shields, chemical safety goggles or full-face mask with respiratory protection, as appropriate. Skin protection: Wear impervious, chemical protective gloves and protective clothing. Double gloves may be required in some handling situations. Wear disposable protective outer clothing. Consider other chemicals present (e.g. solvents) when selecting glove and clothing type; consult glove and clothing manufacturer for specifications. Respiratory protection: Wear suitable respiratory equipment including full-face respirator with HEPA filtration cartridge or supplied-air respirator. For spills or uncontrolled releases, wear a supplied-air respirator. When respiratory protection is required; institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection. Consult with respirator manufacturer to determine respirator selection, use and limitations. A respiratory protection program that meets the regulatory standard, such as OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or Canadian Standards Association (CSA) Standard Z94.4-2002, must be followed whenever workplace conditions warrant a respirator's use. Other protection: Workplaces should have a safety shower, hand-wash station and eye-wash fountain readily available in the immediate work area. Workers whose clothing has been contaminated by product should change into clean clothing promptly. Keep contaminated clothing in closed containers.

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Section 9: Physical and Chemical Properties

Appearance	White to Off-white solid.		
Odor	Not available.		
Odor Threshold	Not available.		
Melting Point	Not available.	pH	Not available.
Freezing Point	Not available.	Vapor Pressure	Not available.
Boiling Point/Range	Not available.	Vapor Density	Not available.
Decomposition temperature	80°C (breakdown to resin an	Viscosity	Not available.
Partition Coefficient: n-octanol/water	Kow = 1.17 for nicotine	Evaporation Rate	Not available.
Flash Point	Not available.	Autoignition temperature	Not available.
Flammability	Not available.	Flammability or Explosive Limits:	
		Lower	Not available.
		Upper	Not available.
Solubility(ies)	Nicotine may leach from the resin in the presence of water and protic solvents.		
Other	Relative density: 1.0 - 1.3		

Section 10: Stability and Reactivity

Reactivity	Not available.
Chemical Stability	Stable at room temperatures. Temperatures above 80°C will cause breakdown of the nicotine-resin complex.
Hazardous Polymerization	Not available.
Conditions to Avoid	Avoid exposure to extreme heat and sources of ignition.
Incompatible Materials	Incompatible with strong oxidizers, acids, bases and excessive heat.
Hazardous Decomposition Products	When heated to decomposition this material may release harmful or toxic vapors which may include vapors of nicotine. Thermal decomposition or combustion may generate nitrogen oxides and carbon, oxides and other irritating and toxic gases and fumes.

Section 11: Toxicological Information

RTECS	Not available.
Acute Toxicity	LD50 Oral: >300 mg/kg (rat) LD50 Dermal: >1 000 mg/kg (rabbit) LC50 Inhalation (4 hrs.): No lethality, no toxicity in rats observed at the maximum achievable air concentration 0.26 mg/L (dust in air)
Skin Corrosion/Irritation	Not available.
Serious Eye Damage/Irritation	Not available.
Respiratory or Skin Sensitization	Not available.
Germ Cell Mutagenicity	Nicotine has not been demonstrated to have mutagenic effects in various assays
Carcinogenicity	This material does not contain any component that is considered a human carcinogen by IARC (International Agency for This material does not contain any component that is considered a human carcinogen by IARC (International Agency for Toxicology Program).
Reproductive Toxicity	Adverse reproductive effects have been observed in experiments with animals exposed to nicotine.

Routes of Entry

Inhalation: As nicotine releases from the resin; the health hazards are those of nicotine. Nicotine will release in contact with water, perspiration, saliva or tears or by warming (~80°C). The action of nicotine is rapid either after breathing it, swallowing it, or absorbing it through the skin. Ingestion: Harmful if swallowed. Fatal cases of nicotine intoxication have occurred, usually as a result of accidental or suicidal ingestion of nicotine insecticides. Skin: Harmful in contact with the skin. Nicotine is rapidly absorbed through the skin. The fatal adult dose is about 60 mg. Nicotine Polacrilex (as 20% Nicotine) was non-irritating to skin in animal tests (rabbit). Eye: Contact is irritating to the eyes.

Symptoms Related to Exposure

Not available.

Potential Health Effects

Nicotine, once absorbed, may cause a transient stimulation, followed by depression or paralyzes of the central nervous system, peripheral autonomic ganglia and nerve endings in skeletal muscle. It also directly stimulates smooth muscle. Repeated exposures to nicotine can be neurologically addictive.

Target Organ(s) Central nervous system, cardiovascular system, lungs, gastrointestinal system, reproductive system. Exposures by

Section 12: Ecological Information**Ecotoxicity**

If desorbed from the resin, Nicotine is toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Persistence and Degradability

Nicotine is rapidly degraded under aerobic conditions by soil bacteria.

Bioaccumulative Potential

The BCF of Nicotine suggests bioconcentration is slow. Nicotine is rapidly metabolized and excreted by animals and does not bioaccumulate.

Mobility in Soil

Although desorption from the resin would occur slowly the estimated K of Nicotine (100) indicates high soil mobility.

Other Adverse Effects

Not available.

Section 13: Disposal Considerations**Waste Disposal**

Do NOT discard into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage. Dispose of in accordance with local/regional/national/ international regulations.

Disposal of Container

Not available.

Other Considerations

Not available.

Section 14: Transport Information**DOT Classification**

Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

Section 15: Regulatory Information**Regulations**

Safety, health and environmental regulations/legislation specific for the substance or mixture: USA TSCA: This substance is not listed on the public inventory under the Toxic Substances Control Act (TSCA). It is regulated under the Federal Food, Drug and Cosmetics Act and it is excluded from TSCA. Other uses are not authorized. SARA Title III: Sec, 313: Not applicable CERCLA RQ None

Other

Not available.



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Section 16: Other Information

This information is furnished with warranty, expressed, or implied, except that it is accurate to the best knowledge of Cambrex Charles City Inc. The data on this sheet relates only to the specific material designated herein. Cambrex Charles City Inc. assumes no legal responsibility for the use or reliance upon these data. Information provided is based on information available to the company. Recipients should conduct their own risk assessments to consider their special circumstances.