For information in Europe, call: +32 14 57 52 11 Emergency Number, Europe: +32 14 57 52 99 Emergency Number US: 201-796-7100 CHEMTREC Phone Number, US: 800-424-9300 703-527-3887 CHEMTREC Phone Number, Europe: Section 2 - Composition, Information on Ingredients CAS#: 7785-70-8 Chemical Name: (+)-Alpha-Pinene %: 98 EINECS#: 232-087-8 Hazard Symbols: XI Risk Phrases: 10 36/37/38 Section 3 - Hazards Identification EMERGENCY OVERVIEW Warning! Flammable liquid and vapor. May cause central nervous system depression. Causes eye and skin irritation. Causes digestive and respiratory tract irritation. Target Organs: Central nervous system. Potential Health Effects Eye: Causes eye irritation. May cause chemical conjunctivitis and corneal damage. Skin: Causes skin irritation. May cause irritation and dermatitis. May cause cyanosis of the extremities. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion of large amounts may cause Ingestion: CNS depression. Inhalation: Causes respiratory tract irritation. Aspiration may lead to pulmonary edema. Vapors may cause dizziness or suffocation. May cause burning sensation in the chest. Chronic: Effects may be delayed. Section 4 - First Aid Measures Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get Eyes: medical aid immediately. Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing Skin: and shoes. Wash clothing before reuse. Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce Ingestion: vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, Inhalation: give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. Notes to Physician: Section 5 - Fire Fighting Measures As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by General thermal decomposition or combustion. Will burn if involved in a fire. Use water spray to keep fire-exposed Information: containers cool. Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use Extinguishing water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be Media: ineffective. Do NOT use straight streams of water. Autoignition 255 deg C (491.00 deg F) Temperature: Flash Point: 33 deg C (91.40 deg F)

Section 6 - Accidental Release Measures

Section 7 - Handling and Storage

Section 8 - Exposure Controls, Personal Protection

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. Use adequate general or local explosion-proof

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Color: clear, colorless Odor: None reported. pH: Not available

Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if

Physical State: Liquid

Vapor Density: 4.7

Decomposition Temperature: Not available

Not available

CAS# 7785-70-8: None listed

RTECS: Not available.

Not available

Not available Not available

Not available

Not available

Not available

Has not been reported.

Solubility in water: insoluble Specific Gravity/Density: .8580g/cm3 Molecular Formula: C10H16 Molecular Weight: 136.24

Section 9 - Physical and Chemical Properties

Vapor Pressure: 5 hPa @ 25 C

Evaporation Rate: Not available

Viscosity: Not available

Freezing/Melting Point: -62 deg C (-79.60°F)

Section 10 - Stability and Reactivity

Section 11 - Toxicological Information

(+)-Alpha-Pinene - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Section 12 - Ecological Information

Section 13 - Disposal Considerations Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None

Section 14 - Transport Information

Section 15 - Regulatory Information

None of the chemicals are on the Health & Safety Reporting List.

None of the chemicals in this material have a SNUR under TSCA.

None of the chemicals are listed under TSCA Section 12b.

None of the chemicals in this material have an RQ.

None of the chemicals in this product have a TPQ.

No chemicals are reportable under Section 313.

None of the chemicals in this product are listed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

S 16 Keep away from sources of ignition - No smoking.

S 33 Take precautionary measures against static discharges.

and the MSDS contains all of the information required by those regulations.

CAS# 7785-70-8 is not listed on Canada's Ingredient Disclosure List.

company has been advised of the possibility of such damages.

S 9 Keep container in a well-ventilated place.

S 23 Do not inhale gas/fumes/vapour/spray.

CAS# 7785-70-8 is listed on Canada's DSL List Canadian WHMIS Classifications: Not available

None of the chemicals in this product are under a Chemical Test Rule.

This material does not contain any hazardous air pollutants. This material does not contain any

None of the chemicals in this product are listed as Priority Pollutants under the CWA. None

Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors. None of the chemicals in this product are listed as Hazardous Substances under the CWA.

of the chemicals in this product are listed as Toxic Pollutants under the CWA.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations

Section 16 - Other Information

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

MSDS Creation Date: 6/08/1998

Revision #6 Date 10/03/2005

(+)-Alpha-Pinene is not present on state lists from CA, PA, MN, MA, FL, or NJ.

Stable under normal temperatures and pressures.

Boiling Point: 155 deg C @ 760.00mm Hg (311.00°F)

Incompatible materials, ignition sources, excess heat, strong oxidants.

Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Chemical Name | ACGIH | NIOSH | OSHA - Final PELs| |-----| | (+)-Alpha-Pinene | none listed | none listed | none listed

protection regulations in 29 CFR 1910.133 or European Standard EN166.

Wear appropriate protective gloves to prevent skin exposure.

Wear appropriate protective clothing to prevent skin exposure.

Section 1 - Chemical Product and Company Identification

AC131260000, AC131261000, AC131262500, AC131265000

Acros Organics BVBA

2440 Geel, Belgium Acros Organics

One Reagent Lane Fair Lawn, NJ 07410

800-ACROS-01

Janssen Pharmaceuticalaan 3a

(+)-Alpha-Pinene, 98%

and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product Handling: residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

OSHA Vacated PELs: (+)-Alpha-Pinene: None listed

ventilation to keep airborne levels to acceptable levels.

irritation or other symptoms are experienced.

Explosion .80 vol % Limits: Lower: Explosion 6.00 vol % Limits: Upper: NFPA Rating: health: 2; flammability: ; instability: ; Use proper personal protective equipment as indicated in Section 8. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

General

Information:

Spills/Leaks:

Storage:

Engineering Controls:

Exposure Limits

Eyes:

Skin:

Clothing:

Chemical Stability:

RTECS#: LD50/LC50:

Carcinogenicity: Epidemiology:

Teratogenicity:

Reproductive: Neurotoxicity:

Mutagenicity:

Other:

Not available

listed.

US DOT

Hazard Class: 3

Hazard Class: UN Number: Packing Group:

US Federal TSCA

Inventory.

Chemical Test Rules

CERCLA Hazardous Substances and

corresponding RQs SARA Section 302

Extremely Hazardous

Substances Section 313

Clean Air Act:

Clean Water Act:

California Prop 65

California No Significant

Canada

European/International Regulations

Risk Phrases:

Safety Phrases:

Hazard Symbols: XI

R 10 Flammable.

WGK (Water Danger/Protection)

CAS# 7785-70-8: Not available

European Labeling in Accordance with EC Directives

OSHA: STATE

Risk Level:

Section 12b

Rule

Health & Safety Reporting

TSCA Significant New Use

UN Number: UN2368 Packing Group: III Canada TDG

Shipping Name: Not available

CAS# 7785-70-8 is listed on the TSCA

Shipping Name: ALPHA-PINENE

Conditions to Avoid:

Hazardous Polymerization

Incompatibilities with Other Materials

Hazardous Decomposition Products

Personal Protective Equipment

Material Safety Data Sheet (+)-Alpha-Pinene, 98%

MSDS# 74582

MSDS Name: Catalog Numbers:

Company Identification:

Company Identification: (USA)

For information in the US, call:

Synonyms:

Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools