



## MATERIAL SAFETY DATA SHEET

CONTACT : **LEONID CHEMICALS**  
Leonid Chemicals Pvt Ltd  
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb  
Ashokpuram School Road  
Bangalore-560 022, Karnataka, INDIA  
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 2,2,3,3,4,4,5,5-Octafluoro-1-pentanol, 98%  
**Catalog Numbers:** 864  
**Synonyms:** Alpha, Alpha, Omega-trihydroperfluoropentanol  
**Company Identification:**  
LEONID CHEMICALS  
62/A-2 2nd Stage, Industrial Suburb  
Yeshwanthpur, Bangalore -22, INDIA  
Ph- +91-80-23378354  
**For emergencies in the US, call CHEMTREC: 800-424-9300**

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
355-80-6	2,2,3,3,4,4,5,5-Octafluoro-1-pentanol	98.0	206-593-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless liquid. Flash Point: 75 deg C.

**Caution! Combustible liquid and vapor.** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. The toxicological properties of this material have not been fully investigated.

**Target Organs:** None known.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

**Inhalation:** May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

**Chronic:** No information found.

### 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:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.

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

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** None reported.

## 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 water spray to keep fire-exposed containers cool. Combustible liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** 75 deg C ( 167.00 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 2; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:** 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.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.  
**Exposure Limits**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2,2,3,3,4,4,5,5-Octafluoro-1-pentanol	none listed	none listed	none listed

**OSHA Vacated PELs:** 2,2,3,3,4,4,5,5-Octafluoro-1-pentanol: No OSHA Vacated PELs are listed for this chemical.

### 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 respiratory 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. 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:** Liquid

**Appearance:** colorless

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** 8.00

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 141 - 142 deg C

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** Not available.

**Solubility:** Insoluble.

**Specific Gravity/Density:** 1.6670g/cm<sup>3</sup>

**Molecular Formula:** C<sub>5</sub>H<sub>4</sub>F<sub>8</sub>O

**Molecular Weight:** 232.07

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, hydrogen fluoride gas.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 355-80-6: SA7650000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 355-80-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found.

**Teratogenicity:** No information found.

**Reproductive Effects:** No information found.

**Mutagenicity:** No information found.

**Neurotoxicity:** No information found.

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## 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 listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Please contact Fisher Scientific for shipping information	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

**CAS# 355-80-6 is listed on the TSCA inventory.**

#### Health & Safety Reporting List

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

#### Chemical Test Rules

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

#### Section 12b

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

#### TSCA Significant New Use Rule

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

#### CERCLA Hazardous Substances and corresponding RQs

**None of the chemicals in this material have an RQ.**

#### SARA Section 302 Extremely Hazardous Substances

**None of the chemicals in this product have a TPQ.**

#### Section 313 No chemicals are reportable under Section 313.

#### Clean Air Act:

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

**This material does not contain any Class 1 Ozone depletors.**

**This material does not contain any Class 2 Ozone depletors.**

#### Clean Water Act:

**None of the chemicals in this product are listed as Hazardous Substances under the CWA.**

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

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

#### OSHA:

**None of the chemicals in this product are considered highly hazardous by OSHA.**

#### STATE

**CAS# 355-80-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.**

California Prop 65

**California No Significant Risk Level: None of the chemicals in this product are listed.**

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XI

Risk Phrases:

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

Safety Phrases:

**S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.**

**S 37 Wear suitable gloves.**

**S 37/39 Wear suitable gloves and eye/face protection.**

**S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).**

**S 28A After contact with skin, wash immediately with plenty of water.**

WGK (Water Danger/Protection)

**CAS# 355-80-6: No information available.**

Canada - DSL/NDSL

**CAS# 355-80-6 is listed on Canada's NDSL List.**

Canada - WHMIS

**WHMIS: Not available.**

Canadian Ingredient Disclosure List

## Section 16 - Additional Information

**MSDS Creation Date: 3/10/1999**

**Revision #2 Date: 3/18/2003**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability 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 Fisher 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 Fisher has been advised of the possibility of such damages.