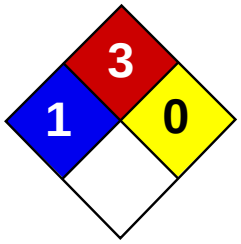

Health	2
Fire	3
Reactivity	0
Personal Protection	H

Material Safety Data Sheet
n-Amyl alcohol MSDS

Section 1: Chemical Product and Company Identification

Product Name: n-Amyl alcohol

Catalog Codes: SLP3385

CAS#: 71-41-0

RTECS: SB9800000

TSCA: TSCA 8(b) inventory: n-Amyl alcohol

CI#: Not applicable.

Synonym: Primary Amyl acohol; n-Pentanol; Amyl alcohol, normal; Pentanol; n-Butylcarbinol; Pentanol-1

Chemical Name: Pentyl Alcohol

Chemical Formula: C5-H12-O

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{n-}Amyl alcohol	71-41-0	100

Toxicological Data on Ingredients: n-Amyl alcohol: ORAL (LD50): Acute: 4613 mg/kg [Rat (Registery of Toxic Effects of Chemicals)]. 3030 mg/kg [Rat (The Merck Index)]. DERMAL (LD50): Acute: 2306 mg/kg [Rabbit]. VAPOR (LC50): Acute: 14000 mg/m 6 hours [Rat]. 14000 mg/m 6 hours [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:
Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.

Skin Contact:
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 300°C (572°F)

Flash Points: CLOSED CUP: 33°C (91.4°F). OPEN CUP: 51°C (123.8°F).

Flammable Limits: LOWER: 1.2% UPPER: 10%

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances:
Highly flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of heat.

Fire Fighting Media and Instructions:
Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Special Remarks on Fire Hazards: Vapor may travel considerable distance to source of ignition and flash back.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:

Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Keep locked up.. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.

Storage:
Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
TWA: 100 (ppm) [Australia] [1993] STEL: 150 (ppm) [France] TWA: 100 (ppm) from AIHA [United States] TWA: 360 (mg/m3) from AIHA [United States] STEL: 150 (ppm) [United Kingdom (UK)] [1993]Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor:
Alcohol like. Characteristic Fusel-like. Pleasant. Sweetish.

Taste: Burning. Pungent. Repulsive

Molecular Weight: 88.15g/mole

Color: Clear Colorless.

pH (1% soln/water): Not available.

Boiling Point: 137.5°C (279.5°F)

Melting Point: -79°C (-110.2°F)

Critical Temperature: 313°C (595.4°F)

Specific Gravity: 0.8146 (Water = 1)

Vapor Pressure: 0.4 kPa (@ 20°C)

Vapor Density: 3 (Air = 1)

Volatility: 100% (w/w).

Odor Threshold: 0.1 ppm

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, acetone.

Solubility:
Soluble in acetone. Partially soluble in cold water, hot water Solubility in water: 2.7 g/100 ml @ 22 deg. C. Miscible with alcohol, ether, and most organic solvents

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources (flames, sparks), incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity: Not available.

Special Remarks on Reactivity: Incompatible with hydrogen trisulfide, strong inorganic acids.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:
WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 3030 mg/kg [Rat (The Merck Index)]. Acute dermal toxicity (LD50): 2306 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 14000 mg/m 6 hours [Mouse]. 3

Chronic Effects on Humans: MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

Other Toxic Effects on Humans:
Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals:
Lowest Published Lethal Dose: LCL [Rat, Mouse] - Route: Inhalation; Dose: 14000 mg/m3 for 6 hours. Lethal Dose/Conc 50% Kill: LD50[Rat] - Route: Oral; Dose: 5660 ul/kg LD50[Rabbit] - Route: Skin; Dose: 2830 ul/kg (Registery of Toxic Effects of Chemicals)

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes moderate to severe eye irritation. It can be absorbed through the skin and cause systemic (liver, kidney) effects. Eyes: Causes moderate to severe eye irritation. Inhalation: Causes respiratory tract irritation, stinging sensation of the eyes producing lacrimation, hyperemia of the conjunctivia without significant corneal injury, nasal discomfort and discharge, chest pain, nausea, vomiting. Inhalation of high concentrations of vapor can also affect the brain, behavior/central nervous system/nervous system, cardiovascular system, vision, respiration, liver, kidneys, and cause vertigo, delirium, ataxia, sedation, dizziness, drowsiness, giddiness, lightheadedness, headache, spastic paralysis, dyspnea, coughing, acute pulmonary edema, respiratory depression, hypotension, cardiac dysrhythmias, double vision, deafness, acute

renal failure, acute tubular necrosis. Ingestion: Causes gastrointestinal tract irritation with nausea, vomiting, diarrhea. Can affect behavior/central nervous system/nervous system (symptoms similar to acute inhalation), liver, kidneys (abnormal renal function, glycosuria, myoglobinuria, acute renal failure, acute tubular necrosis). Chronic Potential Health Effects: Prolonged or repeated inhalation may result in pulmonary edema and kidney injury. Other effects of overexposure are currently unknown.

Section 12: Ecological Information

Ecotoxicity: Ecotoxicity in water (LC50): 370 mg/l 96 hours [Fish (Trout)].

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 3: Flammable liquid.

Identification: : Pentanols UNNA: 1105 PG: III

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:
Rhode Island RTK hazardous substances: n-Amyl alcohol Pennsylvania RTK: n-Amyl alcohol Massachusetts RTK: n-Amyl alcohol Massachusetts spill list: n-Amyl alcohol New Jersey: n-Amyl alcohol TSCA 8(b) inventory: n-Amyl alcohol

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

DSCL (EEC):
R10- Flammable. R20- Harmful by inhalation. R36/38- Irritating to eyes and skin. S16- Keep away from sources of ignition - No smoking. S24/25- Avoid contact with skin and eyes. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 3

Reactivity: 0

Personal Protection: h

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 3

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/10/2005 11:13 AM

Last Updated: 11/06/2008 12:00 PM

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