

SAFETY DATA SHEET

Preparation Date: 7/16/15

Revision Date: 7/16/15

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: H1012
Product Name: 1-HEXANOL, PURIFIED

Other means of identification

Synonyms: 1-Hexanol
 1-Hexyl alcohol
 1-Hydroxyhexane
 Amylcarbinol
 Caproic alcohol
 Caproyl alcohol
 Hexanol
 Hexyl alcohol
 Hexyl alcohol (natural)
 Pentylcarbinol
 n-Hexan-1-ol
 n-Hexyl alcohol

CAS #: 111-27-3
RTECS # MQ4025000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Synthetic flavoring in foods and non-alcoholic beverages. Treating leather and textiles. Herbicide. Insecticide
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2

Serious eye damage/eye irritation	Category 2A
Flammable liquids	Category 3

Label elements

Warning

Hazard statements

Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
Flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if inhaled

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/ .? /equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

In case of fire: Use CO₂, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
1-Hexanol 111-27-3	111-27-3	100

4. FIRST AID MEASURES**First aid measures****General Advice:**

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician

Eye Contact:

Flush eyes with water for 15 minutes. Get medical attention

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary

Most important symptoms and effects, both acute and delayed**Symptoms**

Causes serious eye irritation. Causes skin irritation. Harmful if swallowed, in contact with skin or if inhaled.

Indication of any immediate medical attention and special treatment needed**Notes to Physician:**

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media:**Dry powder. Carbon dioxide (CO₂). Water spray mist or foam**Unsuitable Extinguishing Media:**

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical**Hazardous Combustion Products:**

Carbon Dioxide, Carbon Monoxide.

Specific hazards:Flammable liquid, soluble or dispersed in water
Flammable in presence of open flames and sparks, of heat.
Vapors may form explosive mixtures with air
Vapors may travel to source of ignition and flash back

Special Protective Actions for Firefighters

Specific Methods: Cool containing vessels with water jet in order to prevent build-up, autoignition or explosion.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. All equipment used when handling the product must be grounded

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. All equipment used when handling the product must be grounded. Keep away from incompatible materials

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Store in a segregated and approved area. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store away from incompatible materials

Incompatible Materials:

Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
1-Hexanol 111-27-3	None	None	None	40 ppm TWA

Canada

Components	Alberta	British Columbia	Ontario	Quebec
1-Hexanol 111-27-3	None	None	None	None

Australia and Mexico

Components	Australia	Mexico
1-Hexanol 111-27-3	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles. or. Safety glasses with side-shields
- Skin and body protection:** Long sleeved clothing. Gloves. Chemical resistant apron
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state: Liquid	Appearance: No information available	Color: Clear. Colorless
Odor: Sweetish. Characteristic. Fruity. Fatty	Taste: Fruity. Fatty. Aromatic	Formula: C6H14O
Molecular/Formula weight: 102.17 g/mole	Flammability: Flammable	Flash point (°C): 60-63 73.9
Flashpoint (°C/°F): 60-63°C (140-145°F) 73.9°C (165°F)	Flash Point Tested according to: Closed cup Open cup	Autoignition Temperature (°C/°F): 293-304°C (559.4-580°F)
Lower Explosion Limit (%): 1.2	Upper Explosion Limit (%): 7.7	pH: No information available
Melting point/range(°C/°F): -52 to -44.6°C (-61.6 to -48.28°F)	Boiling point/range(°C/°F): 155-158°C (311-316.4°F)	Decomposition temperature(°C/°F): No information available
Bulk density: No information available	Density (g/cm3): No information available	Specific gravity: 0.81-0.82
Vapor pressure @ 20°C (kPa): 0.1	Evaporation rate: 0.05 (butyl acetate = 1)	Vapor density: 3.5
VOC content (g/L): No information available	Odor threshold (ppm): 0.09	Partition coefficient (n-octanol/water): 2
Viscosity: No information available	Miscibility: Miscible with Ether Miscible with Benzene	Solubility: Soluble in Acetone Very slightly soluble in cold water Soluble in Alcohol Soluble in Chloroform Miscible in Ether Miscible in Benzene Solubility in Water: 5900 mg/L @25°C

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials

Incompatible Materials: Oxidizing agents

Hazardous decomposition products: Carbon monoxide. Carbon dioxide

Other Information

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion. Inhalation

Acute Toxicity

Component Information

1-Hexanol - 111-27-3

LD50/oral/rat = 720 mg/kg Oral LD50 Rat(LOLI)

3131-4420 mg/kg Oral LD50 Rat (RTECS)

LD50/oral/mouse = 1950-4000 mg/kg Oral LD50 Mouse (RTECS)

LD50/dermal/rat = No information available

LD50/dermal/rabbit = 1500 mg/kg Dermal LD50Rabbit (LOLI)

2330 mg/kg (RTECS)

LC50/inhalation/rat = >21 mg/L Inhalation LC50 Rat 1 h

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = 2330 mg/kg Dermal LD50 Rabbit

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = 720mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 1950-4000mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = 1500mg/kg

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information availablemg/l

VALUE-Gas = No information available

VALUE-Dust/Mist = >21mg/l (1-hr)

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact:

Causes skin irritation. Harmful in contact with skin. If absorbed through skin it may cause systemic effects.

Eye Contact:

Causes serious eye irritation. May cause temporary corneal injury (burns) with recovery within 48 hours. .

Inhalation

Harmful by inhalation. Causes respiratory tract irritation.. Inhalation of high concentrations can cause central nervous system effects characterized by nausea, headache, dizziness, confusion, muscle weakness, tremor, ataxia, unconsciousness, coma..

Ingestion Harmful if swallowed. May cause gastrointestinal (digestive) tract irritation with nausea, vomiting, diarrhea. May affect liver . May affect the kidneys. May affect the blood.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated exposure can affect behavior/central nervous system and may produce a narcotic effect. Prolonged or repeated exposure can affect behavior/central nervous system (tremor, ataxia, sensory change involving peripheral nerve, and other central nervous system effects), blood.

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
1-Hexanol	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: Nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

1-Hexanol - 111-27-3

Freshwater Fish Species Data: 144 mg/L LC50 Brachydanio rerio 96 h static 1
89.7-106 mg/L LC50 Pimephales promelas 96 h flow-through 1

Water Flea Data: 201 mg/L EC50 Daphnia magna 24 h

Persistence and degradability: No information available

Bioaccumulative potential: Potential for bioconcentration in aquatic organisms is low.

Mobility: It is expected to have high mobility in soil.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
1-Hexanol	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2282
Proper Shipping Name: Hexanols
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
ERG No: 129
Marine Pollutant: No data available
DOT RQ (lbs): No information available

Symbol(s):

TDG (Canada)

UN-No: UN2282
Proper Shipping Name: Hexanols
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Description: No information available

ADR

UN-No: UN2282
Proper Shipping Name: Hexanols
Hazard Class: 3
Packing Group: III
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: UN2282
Proper Shipping Name: Hexanols
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
EMS: F-E

14. TRANSPORT INFORMATION

MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN2282
Proper Shipping Name: Hexanols
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN2282
Proper Shipping Name: Hexanols
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Description: No information available

IATA

UN-No: UN2282
Proper Shipping Name: Hexanols
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 3L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
1-Hexanol	Present	Present KE-19815	Present	Present (2)-217	Present	Present	Present 203-852-3

U.S. Regulations

1-Hexanol

New Jersey RTK Hazardous Substance List: 1001

Pennsylvania RTK: Present

FDA - Direct Food Additives 21 CFR 172.515 21 CFR 172.864

FDA - 21 CFR - Total Food Additives 172.515 172.864

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
1-Hexanol	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Product code: H1012

Product name: 1-HEXANOL, PURIFIED

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Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
1-Hexanol	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
1-Hexanol	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

B3 Combustible liquid
D2B Toxic materials

1-Hexanol

B3 D2B

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
1-Hexanol	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
1-Hexanol	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
1-Hexanol	Not listed	Not listed

EU Classification

R-phrase(s)

R22 - Harmful if swallowed.

S -phrase(s)

S2 - Keep out of the reach of children.
S24/25 - Avoid contact with skin and eyes.

Components	Classification	Concentration Limits:	Safety Phrases
1-Hexanol	Xn; R22	25%<=C: Xn; R22	S2 S24/25

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xn - Harmful.

**16. OTHER INFORMATION**

Preparation Date: 7/16/15
Revision Date: 7/16/15
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet