



MATERIAL SAFETY DATA SHEET

NFPA	HMIS	Personal Protective Equipment						
	<table border="1"> <tr> <td>Health Hazard</td> <td>2</td> </tr> <tr> <td>Fire Hazard</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							
See Section 8.								

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
Product code:	V2011
Product Name:	Valproic Acid USP
Chemical Name:	Valeric acid, 2-propyl-
Synonyms:	2-Propylpentanoic acid 2-Propylvaleric acid Abbott 44090 Acetic acid, dipropyl- Depakine Depakote Di-n-propylacetic acid Dipropylacetic acid Divalproex Ergenyl n-Dipropylacetic acid Valproate
Recommended use:	Medication.
CAS #:	99-66-1
Formula:	No information available
RTECS #	YV7875000
CI#:	Not available
Supplier:	Spectrum Chemicals and Laboratory Products, Inc. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000
Emergency Telephone Number:	CHEMTREC: 1-800-424-9300
Contact Person:	Martin LaBenz (West Coast)
Contact Person:	Chris Terpak (East Coast)

2. HAZARDS IDENTIFICATION

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! IRRITANT. Irritating to eyes. Irritating to skin. Irritating to respiratory system. May be harmful if swallowed.

Odor:

No information available

Physical state:

Liquid.

Appearance:

Viscous

Color:

Clear. Colorless. Light yellow.

OSHA Regulatory Status

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

POTENTIAL HEALTH EFFECTS

Principal Routes of Exposure:

Ingestion. Inhalation. Skin.

Acute Potential Health Effects:**Skin Contact:**

Irritating to skin..

Eye Contact:

Causes eye irritation.

Inhalation:

Irritating to respiratory system.

Ingestion:

May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhoea. May cause central nervous system effects. May affect the cardiovascular system. May affect the liver. May affect the blood.

Chronic Potential Health Effects:**Target Organs:**

No information available

Carcinogen Status:

No information available

Mutagenic Effects:

No information available

Teratogenic Effects:

May cause birth defects (teratogenic effects). Showed teratogenic effects in animal experiments.

Aggravated Medical Conditions: No information available

See Section 11 for additional Toxicological Information

POTENTIAL ENVIRONMENTAL EFFECTS

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Valproic Acid	99-66-1	100

4. FIRST AID MEASURES

General Advice:	Poison information centres 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. If skin irritation persists, call a physician. Get medical attention.
Eye Contact:	Flush eye 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. Obtain medical attention.
Notes to Physician:	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties

Flashpoint (°C/°F):	111 °C/231.8 °F
Lower Explosion Limit (%):	No information available
Upper Explosion Limit (%):	No information available
Autoignition Temperature (°C/°F):	No information available

Suitable Extinguishing Media:	Carbon dioxide (CO ₂). Dry chemical. Water spray mist or foam.
Unsuitable Extinguishing Media:	No information available.
Hazardous Combustion Products:	Carbon oxides
Specific hazards:	May be combustible at high temperatures. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated.
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
Specific Methods:	No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Remove all sources of ignition.

Environmental Precautions:

No information available..

Methods for Cleaning Up:

Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Storage

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Products:

Oxidizing agents. Bases. Reducing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Personal Protective Equipment

Eye protection: Goggles. Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

National occupational exposure limits**United States**

U.S Occupational Exposure Limits: Not determined

Canada

Canada Occupational Exposure Limits: Not determined

Australia and Mexico

Occupational Exposure Limits for Australia and Mexico: Not determined

9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: Viscous.	Color: Clear. Colorless. Light yellow.
Odor: No information available	Taste No information available	Molecular weight: 144.21
Flash point (°C) : 111	Lower Explosion Limit (%): No information available	Upper Explosion Limit (%): No information available
Autoignition Temperature (°C/°F): No information available	pH: No information available	Boiling point/range(°C/°F): No information available
Melting point/range(°C/°F): No information available	Decomposition temperature(°C/°F): No information available	Specific gravity: 0.904 @ 25 °C
Density (g/cm3): 0.9 @ 25 °C	Bulk density: No information available	Vapor pressure @ 20°C (kPa): No information available
Vapor density: No information available	Evaporation rate: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): 2.75	Miscibility: No information available

Solubility:

Very soluble in organic solvents
Soluble in Methanol
Soluble in Chloroform
Soluble in Ether
Slightly soluble in water
Solubility in Water: 2.0X10+3 mg/L at
20 deg C

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions
Conditions to avoid:	Heat. Ignition sources.
Materials to avoid:	Oxidising agents. Bases. Reducing agents.
Hazardous decomposition products:	Carbon monoxide. Carbon dioxide.
Possibility of Hazardous Reactions:	No information available
Polymerization:	Hazardous polymerisation does not occur
Corrosivity:	No information available
Special Remarks on Corrosivity:	No information available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Valproic Acid - 99-66-1

LD50/oral/rat = 670 mg/kg Oral LD50 Rat
LD50/oral/mouse = 1098 mg/kg
LD50/dermal/rabbit = Not determined
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available

Product Information

LC50/inhalation/rat =
No information available
LC50/Inhalation/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LD50/oral/rat = 670 mg/kg
LD50/oral/mouse = 1098 mg/kg

Local Effects

Skin irritation: Irritating to skin.

Eye irritation: Irritating to eyes.

Inhalation: Irritating to respiratory system. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath. May cause headache. May cause nausea, vomiting.

Ingestion: May be harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting, diarrhea. May cause decreased appetite or anorexia. May affect liver. It may affect the brain (cerebral edema, encephalitis). It may affect cardiovascular system (hypertension). It may affect behavior/central nervous system (central nervous system depression, muscle weakness, ataxia, coma, somnolence, analgesia, anticonvulsant). May affect blood (changes in serum composition, leukocytosis).

Sensitization: No information available

Chronic Toxicity

Chronic Toxicity Prolonged or repeated ingestion may affect the liver. Repeated or prolonged ingestion may affect the blood. Prolonged or repeated ingestion affect the pancreas. Prolonged or repeated ingestion may affect the endocrine system. Prolonged or repeated ingestion affect metabolism (cause anorexia, weight loss). Prolonged or repeated ingestion may affect respiration (respiratory depression). Prolonged or repeated ingestion may affect behavior/central nervous system. Prolonged or repeated ingestion may affect the gastrointestinal system.

Carcinogenic effects: No information available

Mutagenic Effects: No information available

Reproductive Effects: No information available

Teratogenic Effects: May cause birth defects (teratogenic effects). Showed teratogenic effects in animal experiments.

Target Organs: No information available

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Toxicity to terrestrial and aquatic plants and animals: No information available

Ecotoxicity effects: No data available

Aquatic toxicity: No information available

Mobility: No information available

Persistence and degradability: No information available

Bioaccumulative potential: No information available

13. DISPOSAL CONSIDERATIONS

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
Valproic Acid	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: None
Subsidiary Risk: Not applicable
Marine Pollutant: No data available
ERG No: No information available
DOT RQ (lbs): No information available

TDG (Canada)

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Description: No information available

ADR

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
MFAG: No information available
Maximum Quantity: No information available

RID

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available

ICAO

UN-No: Not regulated
Hazard Class: No information available
Proper Shipping Name: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Description: No information available

IATA

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Valproic Acid</i>	Not Listed	Present	KE-29866	(2)-608	Not present	Present	202-777-3

U.S. Regulations

Valproic Acid

Massachusetts RTK: Present

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:
Valproic Acid	Not Listed	developmental toxicity	Not Listed	Not Listed

CERCLA/SARA

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>
Valproic Acid	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
Valproic Acid	Not Applicable	Not Applicable

Canada

WHMIS hazard class:
D2B Toxic materials

Inventory

Components	Canada (DSL)	Canada (NDSL)
Valproic Acid	Present	Not Listed

EU Classification

R -phrase(s)

R22 - Harmful if swallowed.

R36/37/38 - Irritating to eyes, respiratory system and skin.

S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 - Wear suitable gloves.

S46 - If swallowed, seek medical advice immediately and show this container or label.

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

Indication of danger:

Xn - Harmful.

Xi - Irritant.

Xn

Xi



16. OTHER INFORMATION

The MSDS format complies with ANSI Z400.1-2004 standards.

Revision date: 14-May-2010

Reason for revision: Not applicable

Additional advice: Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

Prepared by: Health & Safety

Literature reference: No information available

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) 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 MSDS. The physical properties reported in this MSDS 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 MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.