

# Valproic Acid: sc-213144



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1 Identification of substance:

**Product Name:** Valproic Acid  
**Catalog Number:** sc-213144  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800  
**Emergency:** ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

### 2 Composition/Data on components:

**Chemical characterization:**  
**Description: (CAS#)**  
2,2-Di-n-propylacetic acid (CAS# 99-66-1)  
**Identification number(s):**  
**EINECS Number:** 202-777-3

### 3 Hazards identification

**Hazard description:**



T Toxic

**Information pertaining to particular dangers for man and environment**

R 61 May cause harm to the unborn child  
R 22 Also harmful if swallowed.  
R 34 Causes burns.

**Classification system**

**HMIS ratings (scale 0-4)**  
(Hazardous Materials Identification System)

HEALTH	2
FIRE	1
REACTIVITY	1

Health (acute effects) = 2  
Flammability = 1  
Reactivity = 1

**GHS label elements**



**Danger**

3.7/1B - May damage fertility or the unborn child.



**Danger**

3.2/1C - Causes severe skin burns and eye damage.



**Warning**

3.1/4 - Harmful if swallowed.

**Prevention:**

Obtain special instructions before use.

**Response:**

IF exposed or if you feel unwell:

Immediately call a POISON CENTER or doctor/physician.

### 4 First aid measures

**General information** Immediately remove any clothing soiled by the product.

**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek immediate medical advice.

## 5 Fire fighting measures

**Suitable extinguishing agents**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

## 6 Accidental release measures

**Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Measures for environmental protection:**

Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Additional information:**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

**Handling****Information for safe handling:**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

**Information about protection against explosions and fires:** Keep ignition sources away.

**Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:**

Store away from oxidizing agents.

Store away from strong bases.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

## 8 Exposure controls and personal protection

**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Components with limit values that require monitoring at the workplace:** Not required.

**Additional information:** No data

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respirator when high concentrations are present.

**Protection of hands:**

Impervious gloves

Check protective gloves prior to each use for their proper condition.

**Material of gloves**

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

**Eye protection:**  
Safety glasses  
Tightly sealed goggles  
Full face protection  
**Body protection:** Protective work clothing.

## 9 Physical and chemical properties:

General Information	
<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Weak, characteristic
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	219-220°C (426-428°F)
<b>Sublimation temperature / start:</b>	Not determined
<b>Flash point:</b>	126°C (259°F)
<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Vapor pressure at 20°C (68°F):</b>	0.01 hPa
<b>Density at 20°C (68°F):</b>	0.905 g/cm <sup>3</sup>
<b>Solubility in / Miscibility with</b>	
<b>Water at 20°C (68°F):</b>	2 g/l

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:**  
Decomposition will not occur if used and stored according to specifications.  
**Materials to be avoided:**  
Oxidizing agents  
Bases  
**Dangerous reactions** No dangerous reactions known  
**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

## 11 Toxicological information

**Acute toxicity:**

LD/LC50 values that are relevant for classification:		
Oral	LD50	1098 mg/kg (mouse)
		670 mg/kg (rat)
	LDLo	736 mg/kg (man)

**Primary irritant effect:**  
**on the skin:** Corrosive effect on skin and mucous membranes.  
**on the eye:** Strong corrosive effect.  
**Sensitization:** No sensitizing effects known.  
**Other information (about experimental toxicology):**  
Reproductive effects have been observed on tests with laboratory animals.  
**Subacute to chronic toxicity:**  
**Subacute to chronic toxicity:**  
The Registry of Toxic Effects of Chemical Substances (RTECS) reports the following effects in laboratory animals:  
Brain and Coverings - encephalitis.  
Brain and Coverings - changes in surface EEG  
Brain and Coverings - other degenerative changes.  
Lungs, Thorax, or Respiration - acute pulmonary edema.  
Lungs, Thorax, or Respiration - cyanosis.  
Lungs, Thorax, or Respiration - dyspnea.  
Lungs, Thorax, or Respiration - other changes.  
Lungs, Thorax, or Respiration - respiratory depression  
Gastrointestinal - changes in structure or function of endocrine pancreas.  
Gastrointestinal - hypermotility, diarrhea.  
Gastrointestinal - nausea or vomiting.  
Cardiac - pulse rate increase, without fall in BP.  
Vascular - BP lowering not characterized in autonomic section.  
Behavioral - general anesthetic.  
Behavioral - somnolence (general depressed activity).  
Behavioral - coma.  
Behavioral - sleep.  
Behavioral - analgesia.  
Behavioral - changes in psychophysiological tests.

Behavioral - changes in motor activity (specific assay).  
 Behavioral - muscle weakness.  
 Behavioral - anticonvulsant.  
 Behavioral - ataxia.  
 Behavioral - food intake (animal).  
 Nutritional and Gross Metabolic - other changes.  
 Nutritional and Gross Metabolic - weight loss or decreased weight gain.  
 Liver - other changes.  
 Related to Chronic Data - death.  
 Related to Chronic Data - changes in prostate weight  
 Related to Chronic Data - changes in testicular weight.  
 Related to Chronic Data - changes in ovarian weight.  
 Endocrine - changes in luteinizing hormone.  
 Endocrine - estrogenic.  
 Endocrine - changes in gonadotropins.  
 Sense Organs and Special Senses (Eye) - miosis (pupillary constriction).  
 Biochemical - Metabolism (Intermediary) - amino acids (including renal excretion).  
 Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - transaminases.  
 Biochemical - Neurotransmitters or modulators (purative) - dopamine in striatum.  
 Reproductive - Paternal Effects - testes, epididymis, sperm duct.  
 Reproductive - Paternal Effects - prostate, seminal vesicle, Cowper's gland, accessory glands.  
 Reproductive - Specific Developmental Abnormalities - craniofacial (including nose and tongue).  
 Reproductive - Specific Developmental Abnormalities - musculoskeletal system.  
 Reproductive - Specific Developmental Abnormalities - cardiovascular (circulatory) system.  
 Reproductive - Specific Developmental Abnormalities - Central Nervous System.  
 Reproductive - Effects on Newborn - growth statistics (e.g., reduced weight gain).  
 Reproductive - Effects on Newborn - biochemical and metabolic.  
 Reproductive - Effects on Newborn - physical.  
 Reproductive - Specific Developmental Abnormalities - skin and skin  
 Reproductive - Effects on Newborn - weaning or lactation index (e.g., # alive at weaning per # alive at day 4).  
 Reproductive - Paternal Effects - spermatogenesis (including genetic material, sperm morphology, motility, and count).  
 Reproductive - Fertility - post-implantation mortality (e.g. dead/or resorbed implants per total number of implants).  
 Reproductive - Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus).  
 Reproductive - Effects on Newborn - viability index (e.g., # alive at day 4 per # born live).  
 Reproductive - Specific Developmental Abnormalities - urogenital system.  
 Reproductive - Effects on Embryo or Fetus - cytological changes (including somatic cell genetic material)  
 Reproductive - Specific Developmental Abnormalities - other developmental abnormalities.  
 Reproductive - Effects on Embryo or Fetus - fetal death.  
 Reproductive - Maternal Effects - other effects.  
 Reproductive - Specific Developmental Abnormalities - body wall.  
 Reproductive - Effects on Newborn - Apgar score (human only).  
 Reproductive - Specific Developmental Abnormalities - eye/ear.

#### **Subacute to chronic toxicity:**

Corrosive materials are acutely destructive to the respiratory tract, eyes, skin and digestive tract. Eye contact may result in permanent damage and complete vision loss. Inhalation may result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus. May cause skin burns or irritation depending on the severity of the exposure.

#### **Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

May cause harm to the unborn child.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

## **12 Ecological information:**

#### **Additional ecological information:**

##### **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Do not allow material to be released to the environment without proper governmental permits.

## **13 Disposal considerations**

#### **Product:**

**Recommendation** Consult state, local or national regulations to ensure proper disposal.

#### **Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

### DOT regulations:



**Hazard class:** 8  
**Identification number:** UN3265  
**Packing group:** III  
**Proper shipping name (technical name):** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Di-n-propylacetic acid)  
**Label** 8

### Land transport ADR/RID (cross-border)



**ADR/RID class:** 8 (C3) Corrosive substances  
**Danger code (Kemler):** 80  
**UN-Number:** 3265  
**Packaging group:** III  
**Description of goods:** 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Di-n-propylacetic acid)

### Maritime transport IMDG:



**IMDG Class:** 8  
**UN Number:** 3265  
**Label** 8  
**Packaging group:** III  
**Marine pollutant:** No

**Proper shipping name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Di-n-propylacetic acid)

### Air transport ICAO-TI and IATA-DGR:



**ICAO/IATA Class:** 8  
**UN/ID Number:** 3265  
**Label** 8  
**Packaging group:** III  
**Proper shipping name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Di-n-propylacetic acid)

**UN "Model Regulation":** UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, III

## 15 Regulations

### Product related hazard informations:

#### Hazard symbols:

T Toxic

#### Risk phrases:

61 May cause harm to the unborn child  
22 Also harmful if swallowed.  
34 Causes burns.

#### Safety phrases:

53 Avoid exposure - obtain special instructions before use.  
45 In case of accident or if you feel unwell, seek medical advice immediately.

#### National regulations

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only.

This product contains a chemical known to the state of California to cause cancer or reproductive toxicity.

Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

*Information about limitation of use: For use only by technically qualified individuals.*

***Other regulations, limitations and prohibitive regulations***

*Although this chemical may sometimes be used as a food or drug or cosmetic, our products are not approved or suitable for such use or for human consumption.*

**16 Other information:**

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

11/29/2010