

**Safety Data Sheet**  
**Butyl Acrylate**

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

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**1.1 Product identifier**

**Product name:** Butyl Acrylate

**Synonym(s):** Acrylic acid butyl ester; Butyl 2-propenoate; n-Butyl acrylate; 2-Propenoic acid, butyl ester

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**General use:** For industrial and laboratory applications

**Uses advised against:** None specified

**1.3 Details of the supplier and of the safety data sheet**

**Manufacturer/Distributor**

Silver Fern Chemical, Inc.

2226 Queen Anne Avenue North Suite C

Seattle, WA 98109 USA 1-866-282-3384

Website - [www.silverfernchemical.com](http://www.silverfernchemical.com); email address - [info@silverfernchemical.com](mailto:info@silverfernchemical.com)

**1.4 Emergency telephone number: +1-800-535-5053; Outside USA & Canada +1-352-323-3500**

**SECTION 2 - HAZARDS IDENTIFICATION**

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**2.1 Classification of substance or mixture**

**Product definition:** Substance

**Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No. 1272/2008**

Flammable Liquid - Category 3 [H226]

Skin Irritation - Category 2 [H315]

Sensitizer, Skin - Category 1 [H317]

Eye Irritation - Category 2A [H319]

Acute Toxicity, Inhalation - Category 4 [H332]

Specific Target Organ Toxicity, Single Exposure - Category 3; STOT SE 3 [H335]

Aquatic Toxicity, Acute - Category 2 [H401]

Aquatic Toxicity, Chronic - Category 3 [H412]

**2.2 Label elements**

**Hazard symbol(s):**



GHS02



GHS07

**Signal word:** Danger

**Hazard statement(s):** H226 - Flammable liquid and vapor  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H332 - Harmful if inhaled  
H335 - May cause respiratory irritation  
H401 - Toxic to aquatic life  
H412 - Harmful to aquatic life with long lasting effects

**Precautionary statements**

**[Prevention]**

P210 - Keep away from heat, open flames and hot surface. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground and bond container and receiving equipment.  
P241 + P242 - Use explosion proof electrical, ventilating and lighting equipment. Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing fumes, mist and vapor.  
P264 - Wash hands and other exposed skin areas thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.

**[Response]**

P280 - Wear protective gloves, protective clothing and eye protection.  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P308 + P313 - If exposed or concerned: Get medical attention.  
P321 - Specific treatment: Call a POISON CENTER or doctor if you feel unwell. Refer to Section 4 of this SDS.  
P333 + P337 + P313 - If skin irritation or rash occurs or if eye irritation persists: Get medical attention.  
P362 - Take off contaminated clothing and wash before reuse.  
P370 + P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide for extinction.  
P405 + P403 + P233 + P235 – Store locked up in a well-ventilated place. Keep container tightly closed. Keep cool.  
P501 - Dispose of contents and containers in accordance with national and local regulations.

[Storage]  
[Disposal]

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None as defined under 29 CFR 1910.1200.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
≤ 100	Butyl Acrylate*	141-32-2	205-480-7	607-062-00-3	H226, H315, H317, H319, H332, H335, H401, H412

\*This material is stabilized.

There are no additional ingredients present in this product which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### 3.2 Mixtures

Not applicable

## SECTION 4 – FIRST AID MEASURES

### 4.1 Description of first aid measures

**Inhalation:** If product mist or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist or if the victim feels unwell, seek medical attention.

**Eyes:** Immediately flush eyes with large amounts of water or saline solution for at least 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after first 2 minutes and continue rinsing. If irritation persists seek medical attention, preferably from an ophthalmologist.

**Skin:** Flush skin with large amounts of water while removing contaminated clothing. Wash the affected area with soap and water followed by thorough rinsing. Wash contaminated clothing and shoes before reuse. If irritation persists or if the victim feels unwell, seek medical attention.

**Ingestion:** Rinse mouth with water if the victim is conscious. Remove dentures if present. DO NOT induce vomiting unless directed to do so by medical personnel. Vomiting may occur spontaneously. To prevent aspiration of material into the lungs, lay the victim on one side with the head lower than the waist. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Seek immediate medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential health symptoms and effects

**Eyes:** Causes serious eye irritation. Symptoms may include inflammation, itching, swelling, tearing and pain. May cause conjunctivitis. Prolonged contact with eyes may cause eye damage. Exposure to vapor can cause eye dryness and irritation.

**Skin:** Causes skin irritation with localized redness, itching and discomfort. May cause skin sensitization. Persons previously sensitized can experience allergic skin reactions with redness, itching, swelling and rash upon re-exposure to this product. May cause allergic dermatitis. Prolonged and repeated contact with unprotected skin may result in the absorption of harmful amounts of material.

**Inhalation:** Harmful is inhaled. Vapor or fumes may cause irritation of the respiratory tract with headache, nausea, cough, mucosal irritations, runny nose, sore throat, shortness of breath and chest tightness. Prolonged or repeated exposure may cause respiratory depression and central nervous system effects. May cause an allergic reaction with asthma-like symptoms. Prolonged exposure may damage the respiratory system.

**Ingestion:** Harmful if swallowed. Causes irritation of the digestive tract with nausea, vomiting, abdominal pain and diarrhea. May cause headache, lethargy, weight loss and severe irritation of mucosal linings of the digestive tract.

**Chronic:** Pre-existing disorders of the skin and respiratory system may be aggravated by exposure to this product. Chronic exposure may cause headache, drowsiness, nausea, weight loss and weakness. Prolonged and repeated exposure may result in cross-sensitization with other methacrylates and acrylates. May cause allergic dermatitis and an allergic respiratory reaction with asthma-like symptoms.

### 4.3 Indication of any immediate medical attention and special treatment needed

#### Advice to doctor and hospital personnel

Treat symptomatically and supportively.

## SECTION 5 – FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable methods of extinction:** Use extinguishing media such as water spray or fog, carbon dioxide, foam and dry chemical.

**Unsuitable methods of extinction:** Water jets or streams may spread the fire.

### 5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapor! Vapors are heavier than air and can travel along the ground to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Exposure to ignition sources can ignite vapors, causing a flash fire. Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

**Explosion hazards:** Avoid sources of ignition. Vapors may form an explosive mixture with air, especially in confined spaces. Ground and bond containers in storage and when container is in use.

### 5.3 Advice to firefighters

Firefighters should wear full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If possible, firefighters should control runoff to prevent environmental contamination. Notify appropriate authorities of potential fire and explosion hazard if liquid enters sewers or waterways.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing and equipment designated in Section 8.2. Ventilate the area. Remove all sources of ignition. NO SMOKING. Clean up spills immediately. Spill creates a slip hazard.

### 6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

### 6.3 Methods and materials for containment and cleaning up

Approach spill from upwind direction. Cover drains and contain spill. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect material using non-sparking tools and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches that lead to waterways. Dispose of via a licensed waste disposal contractor.

### 6.4 Reference to other sections

For indications about waste treatment, see Section 13.

## SECTION 7 – STORAGE AND HANDLING

### 7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8.2. Do not get in eyes or on skin or clothing. Do not inhale mist or vapor. NO SMOKING. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Open containers slowly to control possible pressure release. Wash contaminated clothing and shoes thoroughly before reuse.

#### Advice on protection against fire and explosion

Keep away from heat and sources of ignition. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Keep away from heat and ignition sources. Keep away from direct sunlight. Keep from freezing. Transfer only to approved containers having correct labeling. Keep containers tightly closed when not in use. Protect containers against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers are hazardous when empty as they contain product residue. Do not cut, drill, weld, braze, solder grind or perform similar operations on or near empty containers. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

### 7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational exposure limit values

CAS Number	Ingredient	OSHA PEL	ACGIH TLV	NIOSH
141-32-2	Butyl Acrylate	-----	2 ppm TWA	10 ppm; 55 mg/m <sup>3</sup> TWA; 113 ppm IDHL

### 8.2 Exposure controls

**Engineering measures:** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1.

**Individual protection measures:** Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

**Hygiene measures:** Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

**Eye/face protection:** Wear safety glasses with unperforated side shields or protective splash goggles during use.

**Hand protection:** Wear butyl rubber gloves or those recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

**Skin protection:** Wear protective clothing. Wear protective boots if the situation requires.

**Respiratory protection:** Always use an approved respirator when vapor/aerosols exceed permissible exposure limits. Where risk assessment shows air-purifying respirators are appropriate use a half-mask respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

**Environmental exposure controls:** Do not empty into drains.

*PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection*



Splash Goggles



Gloves



Protective Apron

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Characteristic, strong, stinging
Odor Threshold	No data available
Molecular Weight	128.17 g/mol
Chemical Formula	C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>
pH	Not applicable
Freezing/Melting Point	- 64.6 °C (- 84.3 °F)
Boiling Point Range	145 °C (293 °F)
Evaporation Rate	No data available
Flammability (solid, gas)	Not applicable
Flash Point	38 °C (100 °F), closed cup
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	1.1% (v)
Upper Explosive Limit (UEL)	7.8% (v)
Vapor Pressure	5 hPa @ 22.2 °C
Vapor Density	4.42 [Air = 1]
Relative Density	0.894 @ 25 °C
Viscosity	No data available
Solubility in Water	Slightly miscible; 1.7 g/l @ 20 °C
Partition Coefficient (n-octanol/water)	log P <sub>ow</sub> = 2.38 @ 25 °C
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Weight @ 21 °C	No data available

### 9.2 Other Data

No data available

## SECTION 10 – STABILITY AND REACTIVITY

### 10.1 Reactivity

This material is stable under normal handling conditions and use.

### 10.2 Chemical Stability

This material is stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Vapor may form explosive mixtures with air. Although inhibitor is added to this product to prevent polymerization hazardous polymerization can

occur. Excessive aging, heat, contamination with polymerization catalysts, oxygen-free atmosphere, inhibitor depletion or ultraviolet light/direct sunlight may cause polymerization. Uncontrolled polymerization may produce a rapid release of energy with the potential for an explosion of unvented closed containers.

#### 10.4 Conditions to avoid

Avoid temperatures > 35 °C (95 °F), heat sources and exposure to direct sunlight. Avoid radical-forming starting agents, peroxides and reactive metals. Protect from contamination.

#### 10.5 Incompatible materials

Strong oxidizing agents, acids, bases, acid anhydrides, ultraviolet light, direct sunlight, free-radical initiators, organic peroxides, reactive metals, heavy metal salts

#### 10.6 Hazardous decomposition products

Thermal decomposition products include oxides of carbon, hazardous fumes and gases.

### SECTION 11 – TOXICOLOGICAL INFORMATION

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#### 11.1 Information on toxicological effects

##### Acute oral toxicity

LD<sub>50</sub>, rat: 3,510 mg/kg

##### Acute inhalation toxicity

LC<sub>50</sub>, rat: 10.3 mg/l, 4 h (male/female)

##### Acute dermal toxicity

LD<sub>50</sub>, rabbit: > 2,000 mg/kg [literature]

##### Skin irritation

Causes skin irritation.

##### Eye irritation

Causes serious eye irritation.

##### Sensitization

May cause an allergic skin reaction and an allergic respiratory reaction with asthma-like symptoms.

##### Carcinogenicity

No data available

##### Germ cell mutagenicity

No data available

##### Reproductive toxicity

No data available

##### Specific organ toxicity - single exposure

May cause respiratory irritation.

##### Specific organ toxicity - repeated exposure

No data available

##### Aspiration hazard

No data available

#### 11.2 Further information

**Butyl Acrylate** (CAS #141-32-2): IARC 3 carcinogen: *Not classifiable as to its carcinogenicity to humans*; Not classified as a carcinogen by ACGIH, NTP or OSHA.

No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicates it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

### SECTION 12 - ECOLOGICAL INFORMATION

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#### 12.1 Toxicity

This material is harmful, possibly toxic, to aquatic life with long lasting effects.

##### Toxicity to fish:

LC<sub>50</sub> - Cyprinodon variegatus (Sheepshead minnow), flow-through test, 96 h: 2.1 mg/l

##### Toxicity to aquatic invertebrates:

EC<sub>50</sub> - Daphnia magna (Water flea), flow-through test, 48 h: 8.2 mg/l

##### Toxicity to aquatic plants:

ErC<sub>50</sub> - Desmodesmus subspicatus (Green algae), static test, 72 h: 1.71 mg/l

##### Toxicity to bacteria:

ErC<sub>50</sub> - Activated sludge (Bacteria), static test, 30 min: > 1,000 mg/l

#### 12.2 Persistence and degradability

This product is readily biodegradable.

### 12.3 Bioaccumulation potential

This material is not expected to bioaccumulate.

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This material is not considered to be persistent, bioaccumulating and toxic (PBT) and it is not considered to be very persistent or very bioaccumulating (vPvB).

### 12.6 Other effects

#### Additional ecological information

Do not allow material to run into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 13 – DISPOSAL CONSIDERATIONS

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### 13.1 Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**RCRA F-Series:** No listings above the reportable threshold (de minimis)

**RCRA U-Series:** No listings above the reportable threshold (de minimis)

## SECTION 14 – TRANSPORTATION INFORMATION

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**Note:** Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

*Limited quantity for flammable liquids in Packing Group III when inner packagings are not over 5.0 liters (1.3 gallons) net capacity each, packed in a strong outer packaging.*

#### USA DOT (Ground Transportation) - Bulk and Non-bulk

Proper Shipping Name	Butyl acrylates, stabilized
Hazard Class	3
UN	UN2348
Packing Group	III
NAREG	Guide #129P
Packaging Authorization	Non-Bulk: 49 CFR 173.203; Bulk: 173.242
Packaging Exceptions	49 CFR 173.150

Drum Label(s)



#### IMO/IMDG (Water Transportation)

Proper Shipping Name	Butyl acrylates, stabilized
Hazard Class	3
UN	UN2348
Packing Group	III
Marine Pollutant	No
EMS Number	F-E, S-D

#### ICAO/IATA (Air Transportation)

Proper Shipping Name	Butyl acrylates, stabilized
Hazard Class	3
UN	UN2348
Packing Group	III
Quantity Limitations	49 CFR 175.27 and 175.75 - Cargo Aircraft Only: 220 l; Passenger Aircraft: 60 l

#### RID/ADR (Rail Transportation)

Proper Shipping Name	Butyl acrylates, stabilized
Hazard Class	3
UN	UN2348
Packing Group	III

## SECTION 15 - REGULATORY INFORMATION

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### 15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

#### U. S. Federal Regulations

**OSHA Hazard Communication Standard:** This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.



**OSHA Process Safety Management Standard:** This product is not regulated under OSHA PSM Standard 29 CFR 1910.119.

**EPA Risk Management Planning Standard:** This product is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

**EPA Federal Insecticide, Fungicide and Rodenticide Act:** This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

**Toxic Substance Control Act (TSCA) Inventory:** All substances in this product are listed on the TSCA Inventory. This product is not subject to TSCA 12(b) Export Notification.

**Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2)) and Chemical Code Number**  
Not listed

**Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number:** Not listed

**Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals:** Not listed

**Superfund Amendments and Reauthorization Act (SARA)**

**SARA Section 311/312 Hazard Categories**

Flammable liquid and vapor      May cause an allergic skin reaction      May cause respiratory irritation  
Harmful if inhaled      Causes skin irritation and serious eye irritation

**SARA 313 Information:** Butyl Acrylate (CAS #141-32-2) is subject to the reporting levels of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

**SARA 302/304 Extremely Hazardous Substance:** None of the components of the product exceed the threshold (de minimis) reporting levels of established by these sections of Title III of SARA.

**SARA 302/304 Emergency Planning & Notification:** None of the components of the product exceed the threshold (de minimis) reporting levels established by of these sections of Title III of SARA.

**Comprehensive Response Compensation and Liability Act (CERCLA):** None of the components of this product exceed the threshold (de minimis) reporting levels for hazardous wastes established by CERCLA.

**Clean Air Act (CAA)**

This product does not contain Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain Class 1 Ozone depleters.

This product does not contain Class 2 Ozone depleters.

**Clean Water Act (CWA)**

This product does not contain Hazardous Substances.

This product does not contain Priority Pollutants.

This product does not contain Toxic Pollutants.

**U.S. State Regulations**

**California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986**

This product contains no chemical(s) known to the state of California to cause cancer birth defects or reproductive harm in concentrations that exceed the threshold (de minimis) reporting levels established under Proposition 65.

**Other U.S. State Inventories**

*Butyl Acrylate* (CAS #141-32-2) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: CA, DE, NJ, NY, PA, RI, WI.

**Canada**

**WHMIS Hazard Classification**

Flammable liquid and vapor      Harmful if inhaled      Causes skin irritation and serious eye irritation      May cause an allergic skin reaction

**Canadian National Pollutant Release Inventory (NPRI):** Butyl Acrylate (CAS #141-32-2) is listed on the NPRI.

**European Economic Community**

**WGK, Germany (Water danger/protection):** 1 (slightly hazardous to water)

**Global Chemical Inventory Lists**

Country	Inventory Name	Listed
Canada	Domestic Substance List (DSL)	Yes
Canada	Non-Domestic Substance List (NDSL)	No
Europe	Inventory of New and Existing Chemicals (EINECS)	Yes
United States	Toxic Substance Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (KECI)	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

\*Yes - All components of this product comply with the inventory requirements administered by the governing country.

No - One or more components of this product are not on the inventory or are exempt from listing.

## 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16 - OTHER INFORMATION

### Hazardous Material Information System (HMIS)

HEALTH	2
FLAMMABILITY	2
PHYSICAL HAZARD	2
PERSONAL PROTECTION	C

H = safety goggles, gloves & apron

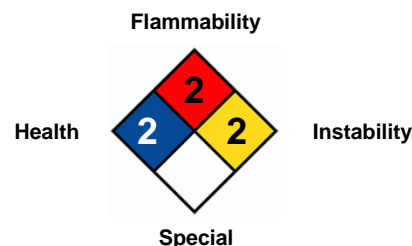
### HMIS Hazard Rating Legend

0 = Minimal 1 = Slight 2 = Moderate  
3 = Serious 4 = Severe  
\* = Chronic Health Hazard

### NFPA Hazard Rating Legend

0 = Insignificant 1 = Slight 2 = Moderate  
3 = High 4 = Extreme

### National Fire Protection Association (NFPA)



### Abbreviation Key

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists	<b>LD<sub>Lo</sub></b>	Lowest Lethal Dose
<b>ADR</b>	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)	<b>mppcf</b>	Millions of Particles Per Cubic Foot
<b>CAS</b>	Chemical Abstract Services	<b>NA</b>	North America
<b>CFR</b>	Code of Federal Regulations	<b>NAERG</b>	North American Emergency Response Guide Book
<b>COC</b>	Cleveland Open Cup	<b>NIOSH</b>	National Institute for Occupational Safety & Health
<b>DOT</b>	Department of Transportation	<b>NTP</b>	National Toxicology Program
<b>EC<sub>50</sub></b>	Half maximal effective concentration	<b>OSHA</b>	Occupational Safety and Health Administration
<b>EMS</b>	Emergency Response Procedures for Ships Carrying	<b>PBT</b>	Persistent, Bioaccumulating and Toxic
<b>EPA</b>	Environmental Protection Agency	<b>PEL</b>	Permissible exposure limit
<b>ErC<sub>50</sub></b>	Reduction of Growth Rate	<b>PMCC</b>	Pensky-Martens Closed Cup
<b>ERG</b>	Emergency Response Guide Book	<b>ppm</b>	Parts Per Million
<b>FDA</b>	Food and Drug Administration	<b>RCRA</b>	Resource Conservation and Recovery Act
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	<b>RID</b>	Dangerous Goods by Rail
<b>HCS</b>	Hazard Communication Standard	<b>RQ</b>	Reportable Quantity
<b>IARC</b>	International Agency for Research on Cancer	<b>TCC/Tag</b>	Tagliabue Closed Cup
<b>IATA</b>	International Air Transport Association	<b>TLV</b>	Threshold Limit Value
<b>IC<sub>50</sub></b>	Half Maximal Inhibitory Concentration	<b>TSCA</b>	Toxic Substance Control Act
<b>ICAO</b>	International Civil Aviation Organization	<b>TWA</b>	Time-weighted Average
<b>IDLH</b>	Immediately Dangerous to Life and Health	<b>UN</b>	United Nations
<b>IMDG</b>	International Maritime Dangerous Goods	<b>VOC</b>	Volatile Organic Compounds
<b>IMO</b>	International Maritime Organization	<b>vPvB</b>	Very Persistent and Very Bioaccumulating
<b>LC<sub>50</sub></b>	50% Lethal Concentration	<b>WHMIS</b>	Workplace Hazardous Materials Information System
<b>LD<sub>50</sub></b>	50% Lethal Dose		

### DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

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