

G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> **n-Butyl Acrylate**
PRODUCT NUMBERS -----> 208300 – 100ppm MEHQ
208400 – 5.723ppm MEHQ,
208500 – 10-20-ppm MEHQ
208507 – 10-20ppm MEHQ
208700 – 20ppm MEHQ
208900 – 40-60ppm MEHQ
209100 – 50ppm MEHQ

CHEMICAL NAME OR SYNONYMS -> 2-Propenoic Acid, Butyl Ester

CAS-NO: 141-32-2

CHEMICAL FAMILY: Ester

1.2 RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

Industrial uses: Use as intermediate, Manufacture and distribution of substance, Polymerization production, Use of ink and ink components.

1.2.2 USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **G.J. CHEMICAL CO., INC.**

Address: **40 VERONICA AVENUE
SOMERSET, NJ 08873**

Telephone: **1-973-589-1450**

Fax: **1-973-589-3072**

1.4 Emergency Telephone Number

Emergency Phone: **1-800-424-9300 (CHEMTREC)**

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226

Acute toxicity, Inhalation (Category 4), H332

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Skin sensitization (Category 1), H317

Specific target organ toxicity - single exposure (Category 3), respiratory system, H335

Acute aquatic toxicity (Category 2), H401

Chronic aquatic toxicity (Category 3), H412

2.2 GHS Label elements, including precautionary statements



Pictogram

GHS02

GHS07

Signal word **Warning**

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 statement(s)

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ 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/ physician 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.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by Wt. Range	CLASSIFICATION
n-Butyl Acrylate	141-32-2 EC-No.205-480-7 Index-No.607-062-00-3 Reg.-No. 01-2119453155-43-XXXX	>99.5	Flammable liquids (Category 3), H226 Acute toxicity, Inhalation (Category 4), H332 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Skin sensitization (Category 1), H317 STOT-SE (Category 3) Respiratory system, H335 Acute aquatic toxicity (Category 2), H401 Chronic aquatic toxicity (Category 3), H412
Monomethyl Ether of Hydroquinone (MEHQ)	150-76-5 EC-No.205-769-8 Index-No.604-044-00-7 Reg.-No. 01-2119541813-40-XXXX	10-120 ppm	Acute toxicity, Oral (Category 4), H332 Eye irritation (Category 2A), H319 Acute aquatic toxicity (Category 3), H401 Chronic aquatic toxicity (Category 3), H412

3.2 MIXTURE: Not applicable.

4. FIRST-AID MEASURES

4.1 EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: n-Butyl Acrylate

****FIRST AID-** Remove from exposure to fresh air, restore breathing use oxygen if needed. Keep warm and quiet. Immediately notify a physician.

EYE CONTACT (Splash): n-Butyl Acrylate

****FIRST AID-** Immediately flush eyes with water for 15 minutes. Hold eyelids open for complete irrigation. Remove contact lenses, if worn, after initial flushing. Immediately take to a physician.

SKIN CONTACT(Splash): n-Butyl Acrylate

****FIRST AID-** Wash affected area with soap and large amounts of water. Remove contaminated clothing. Consult a physician if irritation persists.

INGESTION: n-Butyl Acrylate

****FIRST AID-** Patient should be made to drink large amounts of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician or poison control center, treat symptomatically.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS BOTH ACUTE AND DELAYED:

Eye: Severe irritation;

Skin: Moderately irritating;

Inhalation: Irritation of the respiratory tract. High exposure can cause pulmonary edema.

Ingestion: Can severely irritate mouth, throat and stomach. Can cause dizziness, severe difficulty in breathing and nervousness.

Chronic: No information.

Medical Conditions Aggravated by Exposure: Butyl Acrylate can cause allergic skin reaction in susceptible individuals. May adversely affect people with chronic disease of the respiratory system.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING MEASURES

FLASH POINT: 38°C (100.4°F) TCC LEL %: 1.1(V)

AUTO-IGNITION TEMP: 292.77°C (559°F) UEL %: 7.8(V)

UNIFORM FIRE CODE: Combustible Liquid Class II

5.1 EXTINGUISHING MEDIA:

Suitable extinguishing media: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other--> Alcohol resistant foams (ATC type) are preferred.

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK.

VAPOR-AIR MIXTURES ARE EXPLOSIVE. Keep containers tightly closed. Combustible liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Rapid uncontrolled polymerization can cause explosion. Material creates a special hazard because it floats on water.

CONDITIONS OF FLAMMABILITY: Flammable in the presence of a source of ignition when the temperature is above the flash point.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Fight advanced fires from a protected location. Consider the use of unmanned hose holders or monitor nozzles. Wear self-contained breathing apparatus and turn out gear for confined spaces and where there is exposure to vapors. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Use full fire-fighting turn out gear including NIOSH/MSHA approved positive pressure self-contained breathing apparatus (SCBA). Avoid contact with chemical during fire-fighting operations. If contact is likely change to full chemical resistant fire-fighting clothing with self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Flammable Liquid; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS

Shut off valves, contain spill, keep out of water sources and sewers.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Use explosion proof equipment. For small spills add non-flammable absorbent such as clay or silica in spill area. If an odor or acidity problem exists, add lime or sodium bicarbonate. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent.

Methods for disposal:

Remove contaminated soil to remove contaminated trace residues. Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace residue. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away. Caution: Spontaneous polymerization can occur if material is released or mixed with incompatibles.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: This material presents a fire hazard. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid prolonged or repeated contact with eyes, skin and clothing. Do not take internally. Maintain contact with atmosphere of 5-21% oxygen. Do not use inert atmosphere as blanket. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close container. Avoid static electricity discharges.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke. Wash contaminated clothing before reuse.

STATIC HAZARD> Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 “Flammable and Combustible Liquids” and National Fire Protection Association (NFPA 77) “Recommended Practice on Static Electricity”.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store in closed containers away from direct sunlight. Recommended storage temperature: 15 - 25°C Store large quantities in buildings designed to comply with OSHA 1910.106. Avoid storage under an oxygen free atmosphere. An air space is required above the liquid in all containers. Maintain contact with atmosphere of 5-21% oxygen. Do not use inert atmosphere as blanket. Store only

in stabilized state. Do not store with less than 10 % headspace above liquid Under proper storage conditions a storage stability of 1 year is expected at ambient temperature. Keep containers tight and upright to prevent leakage. Keep containers closed when not in use. Proper grounding procedures should be used to avoid static electricity. Avoid direct sunlight. Do not store with incompatible materials e.g. inert gas, strong bases and strong acids.

CONTAINER WARNINGS > Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
n-Butyl Acrylate	141-32-2 EC-No.205-480-7 Index-No.607-062-00-3 Reg.-No. 01-2119453155-43-XXXX	>99.5	10ppm TWA (OSHA) 2ppm TWA (ACGIH) 10ppm TWA (NIOSH) 2ppm PEL (California)
Monomethyl Ether of Hydroquinone (MEHQ)	150-76-5 EC-No.205-769-8 Index-No.604-044-00-7 Reg.-No. 01-2119541813-40-XXXX	10-120ppm	5mg/m3

Key: (PEL) = Permissible Exposure Limit OSHA
 (TLV) = Threshold Limit Value OSHA & ACGIH
 (STEL) = Short Term Exposure Limit ACGIH
 (WEEL) = USA. Workplace Environmental Exposure Levels
 (TWA) = Time Weighted Average
 CAS = Chemical Abstracts Registry Number
 IDLH = Immediate Danger to Life and Health
 N.E. =None Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES > Consider the potential hazards of this material (Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate

to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS > Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION > For vapor concentrations 1 to 10 time ACGIH TWA an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TWA and in confined areas use a NIOSH/MAHA approved self-contained positive pressure full face-piece supplied air respirator (SCBA).

BODY CLOTHING> Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION > Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Use butyl rubber or neoprene chemical resistant gloves.

Full Contact Gloves:

Material> Butyl Rubber

Minimum thickness> 0.3mm

Break through time >480minutes

Splash Contact:

Material> Butyl Rubber

Minimum thickness> 0.3mm

Breakthrough time >60minutes

Gloves should be removed and replaced immediately if there is any indication of degradation or breakthrough.

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION> Use safety eyewear with splash-guards or face shield. Shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

n-Butyl Acrylate 141-32-2

Appearance-----> Clear liquid

Color-----> Colorless

Odor-----> Sharp Fragrant odor.

Odor Threshold----- > No Data Available

pH-----> No Data Available

Molecular Weight-----> 128.17

Melting/Freezing Point-----> -64.6°C (-84.3°F)

Boiling Point----- > 145°C (293°F)
Specific Gravity----- > .894 @25°C
Vapor Pressure----- > 3.3mmHg@20°C (68°F)
Vapor Density (air=1)-----> 4.42
Water Solubility----- > 1.7g/L @20°C (68°F)
Partition Coefficient n-Octanol/Water-> log Pow: 2.38 @ 25°C (77°F)
Evaporation Rate (Butyl Acetate=1)----> 0.42
Flash Point-----> 38°C (100.4°F) TCC
Upper Flammability Limit-----> 7.8% (V)
Lower Flammability Limit-----> 1.1% (V)
Auto-Ignition Temperature-----> 292.77°C (559°F)
Decomposition Temperature-----> No Data Available
Viscosity-----> No Data Available
Explosive Properties-----> No Data Available
Oxidizing Properties-----> No Data Available

9.2 Other Information:

Surface Tension-----> 20 mN/m at 27°C (81°F)

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No applicable information available

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

This material is considered stable under specified conditions of storage, shipment and use. Must be equilibrated with an atmosphere containing 5-8% (by volume) oxygen for inhibitor to function. See storage, Section 7. Unstable at elevated temperatures.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Explosion and fire hazard exists under confined conditions. Ignitable air mixtures can form when the product is heated above the flash point and/or when sprayed or atomized. Formation of explosive gas/air mixtures. Risk of spontaneous and violent self-polymerization if inhibitor is lost or product is exposed to excessive heat. Risk of spontaneous polymerization when heated or in the presence of UV radiation. With un-stabilized product, spontaneous polymerization may occur e.g. through ambient heat. Polymerization coupled with heat formation. Polymerization produces gases which may burst closed or confined containers. Reactions may cause ignition. Risk of spontaneous polymerization by oxygen depletion of the liquid phase. Radical formation can cause exothermic polymerization. Reacts with peroxides and other radical components. Risk of spontaneous polymerization in the presence of starters for radical chain reactions (e.g. peroxides). Reacts with nitric acid. Polymerizes explosively in contact with strong oxidizing agents. Risk of spontaneous polymerization in the presence of oxidizing agents. Hazardous reactions in presence of mentioned substances to avoid. The product is stabilized against spontaneous polymerization prior to dispatch. The product is stable if stored and handled as prescribed/indicated.

HAZARDOUS POLYMERIZATION: May occur (X) Will not occur)
Uncontrolled polymerization can cause rapid evolution of heat and increased pressure which can result in violent rupture of storage vessels or containers.

10.4 CONDITIONS TO AVOID: --> Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. Extremes of temperature and direct sunlight. Avoid static discharge.

10.5 INCOMPATIBLE MATERIALS --> Avoid contact with the following:
polyvinylchloride, radical formers, free radical initiators, peroxides, mercaptans, nitro-compounds, perborates, azides, ether, ketones, aldehydes, amines, nitrates, nitrites, oxidizing agents, reducing agents, strong bases, acid anhydrides, acid chlorides, concentrated mineral acids, metal salts Inert gas

10.6 HAZARDOUS DECOMPOSITION PRODUCTS --> Under normal conditions of storage and use, hazardous decomposition products should not be produced. Fumes, Carbon Monoxide, Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Severe irritation;

Skin> Moderately irritating;

Inhalation>Irritation of the respiratory tract. High exposure can cause pulmonary edema.

Ingestion>Can severely irritate mouth, throat and stomach. Can cause dizziness, severe difficulty in breathing and nervousness.

Chronic: No information.

Medical Conditions Aggravated by Exposure> Butyl Acrylate can cause allergic skin reaction in susceptible individuals. May adversely affect people with chronic disease of the respiratory system.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50 (Rabbit)	Inhalation LC50	
Butyl Acrylate	3150mg/kg (OECD Test 401)	1796mg/kg	10.3mg/L/4hr (OECD Test 403)	

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: irritating

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Eye irritation

RESPIRATORY OR SKIN SENSITIZATION:

Respiratory: Not sensitizing.

Skin: Causes sensitization. GHS classification: Skin, Sensitization Category 1B.

MUTAGENIC EFFECTS: Ames test Salmonella typhimurium Result: negative

CARCINOGEN STATUS:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY - rat – Inhalation

Maternal Effects: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Specific target organ toxicity (STOT-SE)- single exposure (Globally Harmonized System): May cause respiratory irritation.

Specific target organ toxicity (STOT-SE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: No data available

11.2 ADDITIONAL INFORMATION: Repeated dose toxicity Rat - male - Oral - 90 d - NOAEL: 84 mg/kg - OECD Test Guideline 408 – Sub-chronic toxicity

RTECS: UD3150000

12. ECOLOGICAL INFORMATION

ECOLOGY - Water

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS

May be dangerous if it enters water intakes.

Notify local health and pollution control officials.
Notify operators of nearby water intakes.

12.1 AQUATIC TOXICITY Acute

Toxicity to fish:

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 5.2 mg/L - 96 h
(OECD Test Guideline 203)

LC50 *Cyprinodon variegatus* (sheepshead minnow) 2.1mg/L - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates:

EC50 - *Daphnia magna* (Water flea) – 2.6 mg/L - 48 h – static test
(OECD Test Guideline 202)

Toxicity to Algae and aquatic plants:

EC50 – *Pseudokirchnerella subcapitata* (Algae) – 1.71mg/L - 72 h
(OECD Test Guideline 201)

Toxicity to Bacteria:

EC50 - Domestic activated sludge, BOD Test - >1000mg/L – 30 min.
(OECD Test Guideline 209)

12.2 PERSISTENCE AND DEGRADABILITY:

Aerobic - Exposure time 28 d

Result: 80 - 90 % - Readily biodegradable.

(OECD Test Guideline 310)

BOD (% oxygen Consumption) Day 5-42%, Day 10 - 50%, Day 20 - 62%

Theoretical Oxygen Demand - 2.25mg/kg calculated

Abiotic degradation: Butyl Acrylate will be slowly degraded by photochemical processes after exposure to the air.

12.3 BIOACCUMULATIVE POTENTIAL: The n-octanol/water partition coefficient for Butyl acrylate Log Pow is 2.38

Butyl Acrylate does not Bio-accumulate in organisms.

12.4 MOBILITY IN SOIL: Potential for mobility in soil is high (Koc between 50 and 150). Partition coefficient (Koc): 40 - 148 Measured

% distribution in media: 94.55% in air; 5.24% in water; 0.1% in soil; 0.1% in sediment;

12.5 RESULTS OF PBT AND vPvB ASSESSMENT: This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

12.6. OTHER ADVERSE EFFECTS: Harmful to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the

responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID number is: D001.

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

14. TRANSPORT INFORMATION

Land Transport (DOT)

- 14.1 USDOT ID Number-----> UN2348
- 14.2 USDOT Shipping Name-----> Butyl Acrylates, Stabilized
- 14.3 USDOT Hazard Classification-----> 3 (Flammable Liquid)
 USDOT Label Codes-----> 3 (Flammable Liquid)
- 14.4 USDOT Package Code-----> III
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> None
 Emergency Response Guide-----> 129P

Sea Transport (IMDG)

- 14.1 ID Number-----> UN2348
- 14.2 Proper shipping name-----> BUTYL ACRYLATES, STABILIZED
- 14.3 Hazard Classification-----> 3 (Flammable Liquid)
 Label Codes-----> 3
- 14.4 Package Code-----> III
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> Yes
 EMS-Number-----> F-E, S-D

Air Transport (IATA)

- 14.1 ID Number-----> UN2348
- 14.2 Proper shipping name-----> Butyl Acrylates, Stabilized
- 14.3 Hazard Classification-----> 3 (Flammable Liquid)
 Label Codes-----> 3
- 14.4 Package Code-----> III
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> None

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed n-Butyl Acrylate CAS 141-3-2

SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Chronic Health Hazard, Fire Hazard

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed Reportable Quantity - None

SECTION 101(14) Reportable Quantity: None

Massachusetts Right to Know Components

Butyl acrylate CAS-No.141-32-2

Pennsylvania Right to Know Components

Butyl acrylate CAS-No.141-32-2

New Jersey Right to Know Components

Butyl acrylate CAS-No.141-32-2

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

n-Butyl Acrylate CAS 141-32-2 is listed on the TSCA Inventory.

n-Butyl Acrylate FDA Indirect Food Contact Approvals:

21CFR175.105, 21CFR175.300, 21CFR175.320, 21CFR176.170, 21CFR176.180, 21CFR177.1010, 21CFR177.1200, 21CFR177.1630, 21CFR177.2420, 21CFR178.3790, FDA list of indirect additives used in food contact substances.

International Inventories:

<u>Country or Region</u>	<u>Inventory Name</u>	<u>On inventory yes/no</u>
<u>Australia</u>	Australian Inventory of Chemical Substances	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No

<u>China</u>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No
<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
<u>New Zealand</u>	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<u>Switzerland</u>	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
<u>United States & Puerto Rico</u>	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

- 4-Extreme**
- 3-High**
- 2-Moderate**
- 1-Slight**
- 0-Insignificant**

NFPA RATINGS (SCALE 0-4): Health=2 Fire=2 Reactivity=2
HMIS RATINGS (SCALE 0-4): Health=3 Fire=2 Reactivity=2 PPE=H

Text of hazard statement codes in Section 2 and 3

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.

Date of preparation-----> June 15, 2003

Revision Number-----> 1.9

Revision Content-----> General update all sections

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Acronyms:

ACGIH	-	American Conference of Governmental Industrial Hygenists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American Nation Standards Institute
API	-	American Petroleum Institute
CERCLA	-	Comprehensive Emergency Response, Compensation, and Liability Act
DOT	-	U.S. Department of Transportation
EPA	-	U.S. Environmental Protection Agency
HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

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