

# SAFETY DATA SHEET

## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

CAS Number: 141-32-2
Product Name: Butyl Acrylate

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 2.1
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Manufacturer's Name: Thames River Chemical Corp.

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Product/Recommended Uses: For laboratory or industrial use only.

# **SECTION 2) HAZARDS IDENTIFICATION**

#### Classification

Acute aquatic toxicity - Category 2

Acute toxicity Dermal - Category 4

Acute toxicity Inhalation - Category 4

Acute toxicity Oral - Category 4

Chronic aquatic toxicity - Category 3

Eye Irritation - Category 2A

Flammable Liquids - Category 3

Skin Irritation - Category 2

Skin Sensitizer - Category 1

Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3

# **Pictograms**







Signal Word

Warning

# **Hazard Statements - Health**

Harmful in contact with skin

Harmful if inhaled

Harmful if swallowed

Causes serious eye irritation

Causes skin irritation

May cause an allergic skin reaction

May cause respiratory irritation

#### **Hazard Statements - Physical**

Flammable liquid and vapor

#### **Hazard Statements - Environmental**

Toxic to aquatic life

Harmful to aquatic life with long lasting effects

## **Precautionary Statements - General**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

### **Precautionary Statements - Prevention**

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

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

Use only outdoors or in a well-ventilated area.

Wash thoroughly/Wash hands thoroughly after handling.

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical, ventilating, lighting equipment.

Use only non-sparking tools.

Take action to prevent static discharges.

Contaminated work clothing should not be allowed out of the workplace.

## **Precautionary Statements - Response**

IF ON SKIN: Wash with plenty of water and soap.

Call a POISON CENTER or doctor, if you feel unwell.

Specific treatment (see first-aid on the SDS).

Take off contaminated clothing. And wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Call a POISON CENTER or doctor, if you feel unwell.

Rinse mouth.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

In case of fire: Use carbon dixoxide, alcohol foam, water spray or dry chemical to extinguish.

If skin irritation occurs: Get medical advice/attention.

If skin irritation or a rash occurs: Get medical advice/attention.

## **Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool.

Store in a well-ventilated place. Store locked up.

# **Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

### **Physical Hazards Not Otherwise Classified**

#### Health Hazards Not Otherwise Classified

No Data Available

## **SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS**

#### Composition Information

150-76-5 Monomethyl Ether of Hydroquinone (MEHQ): % By Weight = 10-120ppm

 CAS
 Chemical Name
 % By Weight

 0000141-32-2
 BUTYL ACRYLATE
 99% - 100%

 0000150-76-5
 4-METHOXYPHENOL
 Trace

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

## **SECTION 4) FIRST-AID MEASURES**

## Inhalation

Get medical advice/attention if you feel unwell or are concerned. Immediately notify a physician. Remove source of exposure or move person to fresh air and keep comfortable for breathing. Eliminate all ignition sources if safe to do so. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

#### **Eye Contact**

If eye irritation persists: Get medical advice/attention. If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open. Immediately take to a physician.

#### **Skin Contact**

Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Store contaminated clothing under water and wash before re-use or discard. Rinse skin with water/shower and mild soap for 5 minutes or until product is removed. Consult a physician if irritation persists.

## Ingestion

Patient should be made to drink large amounts of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical advice/attention.

#### Most Important Symptoms and Effects, Both Acute and Delayed

No Data Available

## Indication of Any Immediate Medical Attention and Special Treatment Needed

No Data Available

# **SECTION 5) FIRE-FIGHTING MEASURES**

#### Suitable Extinguishing Media

Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other

## **Unsuitable Extinguishing Media**

Do not use straight stream of water.

#### Specific Hazards in Case of Fire

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.

Flash point: 105°F TCC LEL %: 1.3 UEL %: 9.9

Auto-ignition temp: 559°F

# **Fire-fighting Procedures**

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Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely. Stop spill/release if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product has a low flashpoint: Use of water spray when fighting fire may be inefficient. Nitromethane and nitroethane: Do not use dry chemical extinguishers to control fires. Large Fire: Dike fire-control water for later disposal; do not scatter the material

#### **Special Protective Actions**

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

## **SECTION 6) ACCIDENTAL RELEASE MEASURES**

### **Emergency Procedure**

Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller 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. 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.

#### **Recommended Equipment**

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

#### **Personal Precautions**

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.

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

#### **Environmental Precautions**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Dike far ahead of liquid spill for later disposal.

## Methods and Materials for Containment and Cleaning up

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material. Ventilate area after clean-up is complete.

## **SECTION 7) HANDLING AND STORAGE**

#### General

PERSONAL PRECAUTIONARY MEASURES: 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.

HANDLING INFORMATION: 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.

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".

#### Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. Report ventilation failures immediately. The use of local ventilation is recommended to control emissions near the source.

#### Storage Room Requirements

CONDITIONS FOR SAFE STORAGE: Store in closed containers away from direct sunlight. Do not store above 100°F. An air space is

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required above the liquid in all containers. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep containers closed when not in use.

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 reconditioner.

## **SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

#### **Skin Protection**

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

## **Respiratory Protection**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

## **Appropriate Engineering Controls**

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

Chemical Name	CANsmg	CANsppm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)
4-METHOXYPHENOL	10		5									
BUTYL ACRYLATE												

Chemical Name	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis	ACGIH Carcinogen	ACGIH Notations
4-METHOXYPHENOL		5		Eye irr; skin dam		
BUTYL ACRYLATE		10.5	2	Irr	A4	DSEN; A4

A4 - Not Classifiable as a Human Carcinogen, dam - Damage, DSEN - Dermal sensitization, irr - Irritation

## **SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES**

#### **Physical and Chemical Properties**

Density	7.50 lb/gal
Specific Gravity	0.90
Appearance	colourless liquid
Odor Description	sharp fragrant odor
Odor Threshold	N/A
рН	128

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Melting/Freezing Point -84 °F Low Boiling Point 296 High Boiling Point N/A Flash Point 105 °F Vapor Pressure 3.3 mmHg Vapor Density 4.4 **Evaporation Rate** .42 Upper Explosion Level N/A Lower Explosion Level N/A Water Solubility .2% (20°C)

Coefficient Water/Oil log Pow = 2.38

Viscosity N/A

# **SECTION 10) STABILITY AND REACTIVITY**

## Reactivity

No Data Available

#### Stability

This product 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.

#### **Conditions to Avoid**

Storage at temperatures above 38°C, Sunlight, x-ray or ultra violet radiation, Sparks and Flame.

#### Hazardous Reactions/Polymerization

Vapors may form explosive mixtures with air. Hazardous polymerization can cause rapid evolution of heat and increased pressure, which can result in violent rupture of storage vessels or containers.

### **Incompatible Materials**

Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide and polymerization initiators.

## **Hazardous Decomposition Products**

Fumes, Smoke, Carbon Monoxide

## **SECTION 11) TOXICOLOGICAL INFORMATION**

## Likely Route of Exposure

Inhalation, ingestion, skin absorption

## **Acute Toxicity**

Harmful in contact with skin

Harmful if inhaled

Harmful if swallowed

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Avoid high temperatures and contact with sources of ignition. Avoid exposing product to air, light and moisture. Avoid direct sunlight.

## **Aspiration Hazard**

No Data Available

#### Carcinogenicity

No Data Available

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## **Germ Cell Mutagenicity**

No Data Available

## **Reproductive Toxicity**

No Data Available

## Respiratory/Skin Sensitization

May cause an allergic skin reaction

## Serious Eye Damage/Irritation

Causes serious eye irritation

#### Skin Corrosion/Irritation

Causes skin irritation

#### Specific Target Organ Toxicity - Repeated Exposure

No Data Available

## **Specific Target Organ Toxicity - Single Exposure**

May cause respiratory irritation

0000141-32-2 BUTYL ACRYLATE LD50 (oral, rat): 8053 mg/kg. (11) 0000150-76-5 4-METHOXYPHENOL

LD50 (oral, rat): 740 mg/kg (in corn oil) (1, original report unpublished)

LD50 (oral, rat): 1630 mg/kg (5)

## **SECTION 12) ECOLOGICAL INFORMATION**

#### **Toxicity**

Toxic to aquatic life

Harmful to aquatic life with long lasting effects

May be dangerous if it enters water intakes Notify local health and pollution control officials Notify operators of nearby water intakes

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) -  $5.2 \, \text{mg/l}$  -  $96 \, \text{h}$  Toxicity to daphnia and other aquatic invertebrates - static test EC50 - Daphnia magna (Water flea) -  $1.3 \, \text{mg/l}$  -  $48 \, \text{h}$ 

# **Mobility in Soil**

No Data Available

#### **Bio-accumulative Potential**

No Data Available

# Persistence and Degradability

Aerobic: Exposure time 28 d

Result: 80 - 90 % - Readily biodegradable

#### Other Adverse Effects

No Data Available

# **SECTION 13) DISPOSAL CONSIDERATIONS**

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## **Waste Disposal**

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

## **SECTION 14) TRANSPORT INFORMATION**

#### **U.S. DOT Information**

UN number: UN2348

Proper shipping name: Butyl acrylates, stabilized

Hazard class: 3
Packaging group: III

Hazardous substance (RQ): No Data Available Toxic-Inhalation Hazard: No Data Available

Marine Pollutant: No Data Available

Note / Special Provision: No Data Available

## **Transport Canada Information**

UN number: UN2348

Proper shipping name: Butyl acrylates, stabilized

Hazard class: 3
Packaging group: III

Marine Pollutant: No Data Available

Transport in bulk (according to Annex II of MARPOL 73/78): No Data Available

Note / Special Provision: Note / Special Provision

## **SECTION 15) REGULATORY INFORMATION**

CAS	Chemical Name	% By Weight	Regulation List
0000141-32-2	BUTYL ACRYLATE	99% - 100%	DSL,TSCA,EU_EC_Inventory - EC Inventory
0000150-76-5	4-METHOXYPHENOL	Trace	DSL,TSCA

# **SECTION 16) OTHER INFORMATION**

## Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CANsmg or CANsppm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control

Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

## Version 2.1:

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