

BUTYL ACRYLATE
(Stabilized with Hydroquinone Monomethyl Ether)

Section-1 - IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY / UNDERTAKING	
Product Name (Commercial Name)	: Butyl Acrylate (Butyl Acrylate Monomer)
Uses	: Chemical for Synthesis, Fiber treatment, Adhesives, Synthetic resins, Acrylic rubbers
Synonyms	: Acrylic acid butyl ester, N-Butyl 2-Propenoate.
Manufacturer's Name & Address	: Bharat Petroleum Corporation Limited 4&6, Currimbhoy Road, Ballard Estate Mumbai- 400 001, INDIA
Telephone No.	: 091-22-24176354
Fax No.	: 091-22-24166512/24182511
Emergency Coordination Centre Contact	: BPCL Kochi Refinery, Ambalamugal, Kochi, Kerala
EMERGENCY CONTACT DETAILS	: BPCL – KOCHI REFINERY, Ambalamugal Dist. Ernakulam, Kerala, India 091-484-2722061
24*7 Emergency contact No	: +91 9495001031

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Section 2 – HAZARD IDENTIFICATION



Label :

Signal word : Warning

Hazard statements

H226 Flammable liquid and vapor.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statement(s) Prevention

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

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P240 Ground/bond container and receiving equipment.

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

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

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

P272 Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use alcohol resistant foam or normal protein foam for extinction.

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P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338

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

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

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

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

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Precautionary statement(s) Storage

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

P405 Store locked up.

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

Precautionary statement(s) Disposal

P501 Dispose of contents/container in accordance with local regulations.

Symbols and Indications of danger.



+ Xi : Irritant

R phrases

10 : flammable

36/37/38 : Irritating to eyes, respiratory system and skin

43: May cause sensitization by skin contact.

Special Hazards information for humans and environment.

1. May Polymerize explosively if heated or contaminated.


2. May cause discomfort even at low concentration.

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NFPA HAZARD CODES

NFPA 704

Diamond	Hazard	Value	Description
	Health	3	Can cause serious or permanent injury.
	Flammability	2	Must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.
	Instability	2	Readily undergoes violent chemical changes at elevated temperatures and pressures.
	Special		

(NFPA, 2010)

RATINGS SYSTEM

0 = No Hazard 1 = Slight Hazard 2 = Moderate Hazard

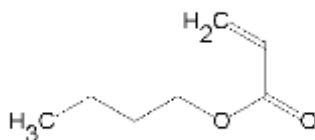
3 = Serious Hazard 4 = Severe Hazard

Section 3 – COMPOSITION & INFORMATION ON INGREDIENTS

Ingredients	CAS No.	EC No.	Percentage
Butyl Acrylate	141-32-2	205-480-7	99.00 % (wt.) min.
MEHQ	150-76-5		>= 20.0 ppm

Chemical Formula

: $\text{CH}_2=\text{CHCOOC}_4\text{H}_9$



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Section 4 – FIRST AID MEASURES

EYES: First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

SKIN: IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.

INHALATION: IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Protective Clothing.

INGESTION: DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital. (NTP, 1992)

Section 5 – FIRE FIGHTING MEASURES

Flashpoint	: 40.1°C (Tag. Closed Cup)
Auto Ignition Temperature	: 284°C
Flammable Limits	: 1.5 to 9.9 Vol%
Suitable Extinguishing Media	: Dry Chemical Powder, Carbon Dioxide, Alcohol Foam

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Unusual or Explosive Hazards : May polymerize explosively if contaminated or heated.
Special Fire Fighting Procedures : Use self-contained breathing apparatus. Cool container with water spray.
Solubility in water : 0.2 wt% at 20 deg C.

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

SMALL FIRE: Dry chemical, CO₂, water spray or alcohol-resistant foam

LARGE FIRE: Water spray, fog or alcohol-resistant foam. Do not use straight streams. Move containers from fire area if you can do it without risk.

FIRE INVOLVING TANKS OR CAR/TRAILER LOADS:

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Section 6 –ACCIDENTAL RELEASE MEASURES

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor-suppressing foam may be used to reduce vapors. 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.

LARGE SPILL: Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor, but may not prevent ignition in closed spaces.

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Wear suitable protective equipment

Take up with absorbent inert material and place in a suitable container

Section 7 –HANDLING AND STORAGE

Handling

: Keep away from heat, sparks and flames.

Use only with adequate ventilation and in closed systems.

Do not inhale the vapors.

Avoid contact with eyes and skin.

Storage

: Keep the containers tightly closed in a cool, ventilated place.

Keep at temperatures not exceeding 30°C

Do not blanket or sparge storage vessels with air or nitrogen, instead maintain contact with atmosphere of 5-8% (by Vol.) Oxygen.

Do NOT use localized heat sources such as band heaters to heat/ melt product.

Do NOT use steam

Do NOT overheat - this may compromise product quality and /or result in an uncontrolled hazardous polymerization.

DO NOT allow clothing wet with material to stay in contact with skin

DO NOT enter confined spaces until atmosphere has been checked.

DO NOT use plastic buckets

Store in original containers in approved flammable liquid storage area.

Store away from incompatible materials in a cool, dry, well-ventilated area.

DO NOT store in pits, depressions, basements or areas where vapors may be trapped.

No smoking, naked lights, heat or ignition sources.

Storage areas should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorized personnel - adequate security must be provided so that unauthorized personnel do not have access.

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Store according to applicable regulations for flammable materials for storage tanks, containers, piping, buildings, rooms, cabinets, allowable quantities and minimum storage distances.

Use non-sparking ventilation systems, approved explosion proof equipment and intrinsically safe electrical systems.

Have appropriate extinguishing capability in storage area (e.g. portable fire extinguishers - dry chemical, foam or carbon dioxide) and flammable gas detectors.

Keep adsorbents for leaks and spills readily available.

Protect containers against physical damage and check regularly for leaks.

Polymerization may occur slowly at room temperature.

Storage requires stabilizing inhibitor content and dissolved oxygen content to be monitored. Refer to manufacturer's recommended levels.

DO NOT overfill containers so as to maintain free head space above product.

Blanketing or sparging with nitrogen or oxygen free gas will deactivate stabilizer.

Section 8 –EXPOSURE CONTROL & PERSONAL PROTECTION

TWA : ACGIH 2 PPM (2012)
UK 10ppm

Personal Protective Equipment:

Eyes : Chemical splash goggles

Skin : Rubber gloves

Respiratory : Self-contained breathing apparatus or Organic canister mask.

Provide: Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for quickly drenching the body should be provided within the immediate work area for emergency use where there is a possibility of exposure. [Note: It is intended that these facilities provide a sufficient quantity or flow of water to quickly remove the substance from anybody areas likely to be exposed. The actual determination of what constitutes an adequate quick drench facility depends on the specific circumstances.

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Section 9 –PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	: Colorless liquid
Odor	: Acrylic odor
Melting Point	: -64.6°C
Boiling Point	: 148°C
Flash Point	: 40.1°C (Tag. Closed Cup)
Auto Ignition Temperature	: 284°C
Explosion Limits: LEL	: 1.5%
UEL	: 9.9%
Vapour Pressure	: 440.0Pa (20°C)
Relative Vapor Density	: 4.42
Density	: 0.9003 g/cm ³ (20/20°C)
Solubility in Water	: 0.2 wt.% (20°C)
Molecular Weight (ACGIH-2012)	:128.17 g/Mol.

Section 10 –CHEMICAL STABILITY AND REACTIVITY INFORMATION	
Hazardous Polymerization	: Heating may cause hazardous polymerization.
Stability	: Monomethyl Ether of hydroquinone is added as inhibitor to prevent polymerization.
Incompatibilities	: Strong oxidizing agents, strong bases & strong acids
Hazardous Combustion and decomposition Products: Oxides of Carbon on burning.	

Section 11 –TOXICOLOGICAL INFORMATION	
EYE IRRITATION	: Can result in several corneal burns and may result in irreversible injury.
SKIN IRRITATION	: Prolonged exposure may result in burns and blister formation. May be absorbed through the skin

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RESPIRATORY/ INHALATION	: Vapor may cause irritation to respiratory tract. High exposure could result in pulmonary edema.
INGESTION	: Not available

Section 12 –ECOLOGICAL INFORMATION

The chemical is readily BIODEGRADABLE. No chances OF BIOACCUMULATION.

Section 13– DISPOSAL CONSIDERATION

Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations. This product should not be dumped, spilled, rinsed or washed into sewers or public waterways.

Recommended disposal methods for the substance / preparation

Burn in a chemical incinerator equipped with an afterburner and scrubber. After the container has been emptied, it may contain residual hazardous liquid or vapors.

Product reuse or disposal in accordance with valid waste legislative regulations.

Recommended disposal methods for contaminated packaging

Product is transported in tank-vehicles.

Waste management measures that control exposure of humans and

Environment. - Proceed in accordance with valid health, air and water legislative regulations.

Waste regulation: Follow local regulation.

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. *Handle uncleaned containers like the product itself.*

Section 14– TRANSPORT INFORMATION

UN NUMBER	: 2348
UN HAZ. CLASS	: 3 PG III
Proper shipping name is Butyl Acrylate, stabilized.	

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Section 15– REGULATORY INFORMATION

MSDS format on a 16 Section based on guidance provided in:

Indian Regulation:

Manufacture, Storage and Import of Hazardous Chemicals Rule, 1989.

The Factories Act 1948

International Regulations:

European SDS Directive

Labelling according to EEC directives

*R phrases: R 10-36/37/38-43: Flammable. Irritating to eyes, respiratory system and skin.

* S – phrases – S2 Keep out of reach of children, S9 Keep container in a well ventilated place.

These standard risk and safety phrases for use when interpreting Material Safety data Sheets are derived from the European Union Regulation. They are required to be used in Materials Safety Data Sheets to identify potential hazards and offer safe handling advice.

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Section 16 – OTHER INFORMATION

No specific notes on this product

This MSDS is issued by, Bharat Petroleum Corporation Limited.

Disclaimer:

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End of MSDS