Safety Data Sheet

Butyl Acrylate

Version 1.05 Revision Date 06.02.2024

SECTION 1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name	Butyl Acrylate
Synonyms	n-butyl acrylate, butyl prop-2-enoate, Acrylic acid n-butyl ester, 2-propenoic acid butyl ester
Product code	5013
CAS-No.	141-32-2

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

Use	Raw material for synthesis processes in the chemical industry. Industrial use.

Manufacturer or supplier's details

Company	Sasol Chemicals, a division of Sasol South Africa Ltd
Address	Sasol Place, 50 Katherine Street Sandton 2090 South Africa
Telephone	+27103445000
E-mail address	sasolchem.info.sa@sasol.com
Supplier's details	Sasol Chemicals Pacific Ltd 61 Robinson Road #17-02, 61 Robinson Singapore 068893
Telephone	+65 6533 8856
E-mail address	info.sg@sasol.com

Emergency Phone Number

Emergency telephone number	+44 (0)1235 239 670 (Europe, Israel, Africa, Americas) +44(0)1235 239 671 (Middle East, Arabic African countries) +65 3158 1074 (Asia Pacific)

+86 400 120 6011 (China)

+27 (0)17 610 4444 (South Africa)

0800 112 890 RSA-Local only

+61 (2) 8014 4558 (Australia)

SECTION 2. Hazards identification

Classification of the substance or mixture

GHS Classification

	SS 586 : Part 2: Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods, Part 2 : Globally harmonized system of classification and labelling of chemicals - Singapore's adaptions	
Classification	Flammable liquids	Category 3
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitisation	Category 1
	Specific target organ toxicity - single exposure	Category 3

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Precautionary statements : **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.

P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ eye protection/ face protection.
P264 Wash the contact area thoroughly after handling.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P317 If skin irritation occurs: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P319 Get medical help if you feel unwell.

Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. Composition/information on ingredients

HAZARDOUS INGREDIENTS

n-Butyl acrylate
Contents: 100.00 %W/W
CAS-No. 141-32-2 **Index-No.** 607-062-00-3 **EC-No.** 205-480-7
Hazard statements *H319 H315 H226 H317 H335*

SECTION 4. First aid measures

Description of necessary first-aid measures

Inhalation	Move to fresh air in case of accidental inhalation of vapours. In case of shortness of breath, give oxygen. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Call a physician immediately.
Ingestion	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Seek medical advice.

Most important symptoms/effects, acute and delayed

Refer to SECTION 11

SECTION 5. Firefighting measures

Suitable extinguishing media	Alcohol-resistant foam. Dry chemical. Carbon dioxide.
Special hazards arising from the substance or mixture	Flash back possible over considerable distance. Do not allow run-off from fire fighting to enter drains or water courses. Increased temperature causes runaway reaction due to uncontrolled polymerization leading to explosion.
Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.

SECTION 6. Accidental release measures

Personal precautions	Use personal protective equipment. Do not breathe vapours or spray mist. Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Shut off all sources of ignition. Use non-sparking tools.
Environmental precautions	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). The material taken up must be disposed of in accordance with regulations.
Reference to other sections	Refer to Section 8 and 13

SECTION 7. Handling and storage

Safe handling advice	Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking.
Advice on protection against fire and explosion	Take precautionary measures against static discharges.Do not allow to enter drains (danger of explosion).Explosion protection equipment required.Use explosion-proof equipment.To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded.Keep away from heat and sources of ignition.Vapours may form explosive mixtures with air.Keep away from sources of ignition - No smoking.
Requirements for storage areas and containers	Keep containers tightly closed in a cool, well-ventilated place.The stabiliser is only effective in the presence of oxygen.Keep away from heat.
Advice on common storage	No data available.

SECTION 8. Exposure controls/personal protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis
N-BUTYL ACRYLATE	TWA TWA	52 mg/m3 10 ppm	2006 2006	Singapore PELs Singapore PELs

Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Respiratory protection	Respirator with a vapour filter (EN 141)
Hand protection	Gloves suitable for permanent contact.: Material: butyl-rubber Break through time: 157 min Material thickness: 0.7 mm RECOMMENDATION: use an in-liner or cotton glove inside the butyl rubber glove.
Eye protection	Safety glasses with side-shields.
Skin and body protection	Protective suit. Safety shoes.
Hygiene measures	Wash hands before breaks and immediately after handling the product.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Form	Liquid
State of matter	Liquid; at 20 °C; 1,013 hPa
Colour	Colourless
Odour	Pungent
Odour Threshold	No data available.
pH	No data available.
Melting point/range	-65 °C

Boiling point/boiling range	148 °C
Flash point	37 °C; closed cup
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Auto-ignition temperature	292 °C
Decomposition Temperature	No data available.

Lower explosion limit	1.2 %(V)
Upper explosion limit	8 %(V)
Vapour pressure	5.34 hPa; 20 °C
Relative vapour density	4.42(Air = 1.0)
Density	0.898 g/cm3; 20 °C
Water solubility	1.6 g/l; 20 °C; Insoluble
Partition coefficient: n-octanol/water	log Pow: 2.36; 25 °C
Viscosity, kinematic	0.96 mm2/s; 20 °C

SECTION 10. Stability and reactivity

Reactivity	The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerise with heat evolution.
Chemical stability	Ensure the presence of air (oxygen). Inhibitor works only in the presence of oxygen. Avoid inert atmosphere! Never use Nitrogen! Ensure good distribution of the inhibitor and dissolved oxygen. Please take note of the product's maximum storage period.
Possibility of hazardous reactions	Polymerisation occurs when exposed to white light, ultraviolet light or heat.Polymerises with risk of fire and explosion.Hazardous polymerization may occur upon depletion of inhibitor - may cause heat and pressure build-up in closed containers.Self-accelerating polymerization temperature (SAPT) for stabilized Sasol Butyl Acrylate was determined at Kinetica Laboratories in the USA for various package sizes (drum, isotainer and 1000 and 3000m3 tanks) and found to be >50°C for all package sizes. Therefore Sasol Butyl

	Acrylate can be shipped at ambient temperature.
Conditions to avoid	Avoid temperatures above 35°C, direct sunlight and contact with sources of heat. Avoid radical-forming starting agents, peroxides and reactive metals. Avoid any contamination of the product!
Materials to avoid	Mineral acids. Oxidizing agents. metal oxides /hydroxides. Heavy metal salts Acids and bases Acid anhydrides Polymerization initiators (e.g, alkali hydroxides, amines, amindes, acids, peroxides, hydroperoxides, metals).
Hazardous decomposition products	Stable under recommended storage conditions.

SECTION 11. Toxicological information

Acute oral toxicity	n-Butyl acrylate: LD50 Rat: > 2,000 mg/kg; (literature value)
Acute inhalation toxicity	n-Butyl acrylate: LC50 Rat: male and female; 4 h; vapour; > 10 - 20 mg/l; (literature value)
Acute dermal toxicity	n-Butyl acrylate: LD50 Rabbit: > 2,000 mg/kg; (literature value)
Skin irritation	n-Butyl acrylate: Rabbit: Irritating; 78 h; (literature value)
Eye irritation	n-Butyl acrylate: Rabbit: Irritating 71 h; (literature value)
Sensitisation	n-Butyl acrylate: Maximisation Test; Guinea pig: Sensitizing; (literature value)
Mutagenicity	n-Butyl acrylate: Ames test: Salmonella typhimurium; Not mutagenic; (literature value)

SECTION 12. Ecological information

Toxicity to fish	n-Butyl acrylate:

	static test; Oncorhynchus mykiss; 96 h; LC50; > 1 - 10 mg/l; (literature value)
Toxicity to daphnia and other aquatic invertebrates	n-Butyl acrylate: Daphnia magna (Water flea); 48 h; EC50; > 1 - 10 mg/l(literature value)
Toxicity to algae	n-Butyl acrylate: static test; Selenastrum capricornutum (green algae)96 h; EC50; > 1 - 10 mg/l; (literature value)
Biodegradability	n-Butyl acrylate: aerobic; > 70 %; 28 d; Readily biodegradable.; (literature value)
Physico-chemical removability	n-Butyl acrylate: The product can be eliminated from water by abiotic processes, e.g. adsorption on activated sludge.
Bioaccumulation	n-Butyl acrylate: No bioaccumulation is to be expected (log Pow <= 4).
Mobility in soil	n-Butyl acrylate: No data available.
Results of PBT and vPvB assessment	n-Butyl acrylate: This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
Other adverse effects	n-Butyl acrylate: No data available.

SECTION 13. Disposal considerations

Product	Do not contaminate ponds, waterways or ditches with chemical or used container. In accordance with local and national regulations. The product should not be allowed to enter drains, water courses or the soil.
Packaging	Dispose of spent product packaging responsibly and lawfully with due consideration for health, safety and the environment.

SECTION 14. Transport information

DG Pictogram

ADR

UN number:	2348
Class:	3
Packaging group:	III; F1;
Proper shipping name:	BUTYL ACRYLATES, STABILIZED

RID

UN number:	2348
Class:	3
Packaging group:	III; F1
Proper shipping name:	BUTYL ACRYLATES, STABILIZED

ADNR

UN number:	2348
Class:	3
Packaging group:	III; F1
Proper shipping name:	BUTYL ACRYLATES, STABILIZED

IMDG

UN number:	2348
Class:	3
EmS:	F-E, S-D
Packaging group:	III; Not a Marine Pollutant
Proper shipping name:	BUTYL ACRYLATES, STABILIZED

Marine pollutant	
ICAO/IATA	
UN number :	2348
Class:	3
Packaging group:	III
Proper shipping name:	BUTYL ACRYLATES, STABILISED
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Butyl acrylate (all isomers) Ship Type: 2 POLLUTION CATEGORY: Y

SECTION 15. Regulatory information

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

USA TSCA Inventory	All chemical constituents are listed in: USA TSCA Inventory (See chapter 3)
Canadian Domestic Substances List (DSL)	All chemical constituents are listed in: Canadian Domestic Substances List (DSL) (See chapter 3)
Australian Inv. of Chem. Substances (AICS)	All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See chapter 3)
New Zealand Inventory of Chemicals (NZIoC)	All chemical constituents are listed in: New Zealand Inventory of Chemicals (NZIoC) (See chapter 3)
Jap. Inv. of Exist. & New Chemicals (ENCS)	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCS) (See chapter 3)
Japan. Industrial Safety & Health Law (ISHL)	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See chapter 3)
Korea. Existing Chemicals Inventory (KECI)	All chemical constituents are listed in: Korea. Existing Chemicals Inventory (KECI) (See chapter 3)

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See chapter 3)
China Inv. Existing Chemical Substances (IECSC)	All chemical constituents are listed in: China Inv. Existing Chemical Substances (IECSC) (See chapter 3)

SECTION 16. Other information

Full text of H-Statements

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS only provides information regarding the health, safety and environmental hazards at the date of issue, to facilitate the safe receipt, use and handling of this product in the workplace and does not replace any product information or product specifications. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which this product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this SDS in the context within which this product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place with respect to health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of this product.
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