SAFETY DATA SHEET
BUTYL ACRYLATE
COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name BUTYL ACRYLATE

Product number B0980185, B0980001FB, B0770215

REACH registration number 01-2119453155-43-xxxx

CAS number 141-32-2

EU index number 607-062-00-3

EC number 205-480-7

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

Identified uses Chemical Intermediate. Polymer preparations

1.3. Details of the supplier of the safety data sheet

Supplier

Whyte Chemicals Limited
298 Regents Park Road
London
N3 2UA

+44 (0) 208 346 5946
+44 (0) 208 349 4589
mugford@whytechem.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0)1270 502891

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC/1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335

Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

EC number 205-480-7

Pictogram

BUTYL ACRYLATE

Signal word Warning

Hazard 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.
H412 Harmful to aquatic life with long lasting effects.
H332 Harmful if inhaled.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplementary precautionary statements
P240 Ground/ bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin 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.
P302+P352 IF ON SKIN: Wash with plenty of water.
P312 Call a POISON CENTER/ doctor if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
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.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name BUTYL ACRYLATE

REACH registration number 01-2119453155-43-xxxx

EU index number 607-062-00-3

CAS number 141-32-2

EC number 205-480-7

SECTION 4: First aid measures

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4.1. Description of first aid measures

General information In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Remove contaminated clothing. CAUTION! First aid personnel must be aware of own risk during rescue! If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If danger of loss of consciousness, place patient in recovery position and transport accordingly. If breathing stops, provide artificial respiration.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.

Ingestion Get medical attention.

Skin contact Wash skin thoroughly with soap and water. Get medical attention immediately.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

Inhalation May cause respiratory irritation. Harmful if inhaled.

Ingestion May cause discomfort if swallowed.

Skin contact Skin irritation. May cause sensitisation by skin contact.

Eye contact Causes serious eye irritation.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Specific hazards Flammable liquid and vapour. Polymerises easily with evolution of heat. Polymerization is exothermic and can degenerate into an uncontrolled reaction.

Hazardous combustion products When heated, vapours/gases hazardous to health may be formed.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Control run-off water by containing and keeping it out of sewers and watercourses. Contain and collect extinguishing water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions Ensure procedures and training for emergency decontamination and disposal are in place. No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Use suitable respiratory protection if ventilation is inadequate. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. No smoking, sparks, flames or other sources of ignition near spillage.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up No smoking, sparks, flames or other sources of ignition near spillage. Pump into a labelled inert emergency tank. Absorb spillage with sand or other inert absorbent. Rinse with water. Recover waste water for processing later.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Mechanical ventilation or local exhaust ventilation may be required. Do not use activated carbons to capture odours of acrylates Eye wash facilities and emergency shower must be available when handling this product. Provide water supplies near the point of use. Self contained breathing apparatus must be available in case of emergency. Never bring into contact with an atmosphere made of lifeless gas only. Take precautionary measures against static discharges. Keep away from heat, sparks and open flame. Use explosion proof electric equipment. Maintain in contact with an atmosphere containing between 5 and 7% of oxygen.

Advice on general occupational hygiene Avoid inhalation of vapours and contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Avoid heat, flames and other sources of ignition. Do not eat, drink or smoke when using the product. Never use a system in contact with inert atmospheres for storage. Protect from light. Avoid long storage period. Inhibitor levels should be maintained. Monitor the product clarity. Provide a catch-tank in a bunded area. Continuously monitor product temperature. Store at moderate temperatures in dry, well ventilated area. Provide electrical earthing of equipment and electrical equipment usable in explosive atmospheres. Do not store at temperatures above 30ºC/86ºF Suitable container materials: Aluminium. Stainless steel. High density polyethylene (HDPE). Polypropylene Polytetrafluoroethylene (PTFE) Unsuitable containers: Unprotected steel. Rubber. Maintain in contact with an atmosphere containing between 5 and 7% of oxygen.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

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Long-term exposure limit (8-hour TWA): WEL 1 ppm 5 mg/m³
Short-term exposure limit (15-minute): WEL 5 ppm 26 mg/m³

WEL = Workplace Exposure Limit

DNEL

Workers - Inhalation; Long term local effects: 11 mg/m³
Workers - Dermal; Short term local effects: 0.28 mg/cm2

PNEC

- Fresh water; 0.00272 mg/l
- Marine water; 0.000272 mg/l
- Sediment (Freshwater); 0.0338 mg/kg
- Soil; 1 mg/kg
- Intermittent release; 0.011 mg/l
- STP; 3.5 mg/l
- Sediment (Marinewater); 0.00338 mg/kg

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles and face shield.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Neoprene. (EN 374)

Other skin and body protection

Provide eyewash station and safety shower. Wear rubber footwear. Wear chemical protective suit. Boots.

Hygiene measures

When using do not eat, drink or smoke. Wash promptly if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Liquid.

Colour Colourless.

Odour Fruity.

Odour threshold Not available.

pH Not available.

Melting point -64.6°C

Initial boiling point and range 147°C @ 1013 hPa

Flash point 37°C CC (Closed cup).

Evaporation rate Not available.

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Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.5 Upper flammable/explosive limit: 7.8
Vapour pressure	5 hPa @ 22.2°C
Vapour density	4.4
Relative density	0.9 g/cm3 @ 20°C
Bulk density	898 kg/m³
Solubility(ies)	1.7 g/l water @ 20°C Slightly soluble in water. Soluble in the following materials: Organic solvents.
Partition coefficient	log Kow: 2.38
Auto-ignition temperature	292°C
Decomposition Temperature	Not available.
Viscosity	0.88 mPa s @ 20°C
Explosive properties	Not relevant.
Oxidising properties	Not relevant.

9.2. Other information

Other information	Not available.
Molecular weight	128.2 g/mol

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Flammable/combustible materials. Polymerization is exothermic and can degenerate into an uncontrolled reaction.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Presence of a polymerization inhibitor: p-Methoxyphenol (Hydroquinone monomethyl Ether) or hydroquinone. Control free oxygen level: free oxygen is essential to stabilize the product. The product is stable if inhibitor concentration is maintained at: 15 mg/kg.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions May polymerise. Maintain in contact with an atmosphere containing between 5 and 7% of oxygen. Polymerises easily with evolution of heat. Polymerization is exothermic and can degenerate into an uncontrolled reaction.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Protect from light. Do not store at temperatures above 30ºC/86ºF

10.5. Incompatible materials

Materials to avoid Strong acids. Strong alkalis. Strong oxidising agents. Free radical generators. Activated carbon (explosive reaction) Peroxides.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide (CO). Carbon dioxide (CO2).

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other health effects There is no evidence that the product can cause cancer.

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 3,143.0

Species Rat

ATE oral (mg/kg) 3,143.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg) 3,024.0

Species Rabbit

ATE dermal (mg/kg) 3,024.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l) 10.3

Species Rat

ATE inhalation (vapours mg/l) 10.3

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Severe irritation.

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Chromosome aberration: Negative. Based on available data the classification criteria are not met.

Genotoxicity - in vivo Chromosome aberration: Negative. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity No evidence of carcinogenicity in animal studies.

Specific target organ toxicity - single exposure

STOT - single exposure Decrease of respiratory frequency by 50%, mouse (vapour, 1.78 mg/l) Irritating to respiratory system.

Target organs Respiratory system, lungs

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 84 mg/kg, Oral, Rat

Aspiration hazard

Aspiration hazard Not applicable.

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Inhalation May cause respiratory irritation. Harmful if inhaled.

Ingestion May cause discomfort if swallowed.

Skin contact Irritating to skin. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

SECTION 12: Ecological Information

Ecotoxicity Harmful to aquatic life with long lasting effects.

12.1. Toxicity

Acute toxicity - fish LC50, 96 hours: 2.1 mg/l, Cyprinus carpio (Common carp)

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 8.2 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC_{50}, 72 hours: 2.65 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms EC_{0}, 3 hours: > 150 mg/l, Activated sludge

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.136 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

Biodegradation Water - Degradation (%) 80-90: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient log Kow: 2.38

12.4. Mobility in soil

Mobility The product is soluble in water.

Adsorption/desorption coefficient - log Koc: 1.6-2.2 @ °C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Waste is suitable for incineration. Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. Steam clean packaging. Destroy packaging by incineration at an approved waste disposal site. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

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SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	2348
UN No. (IMDG)	2348
UN No. (ICAO)	2348
UN No. (ADN)	2348

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	BUTYL ACRYLATES, STABILIZED
Proper shipping name (IMDG)	BUTYL ACRYLATES, STABILIZED
Proper shipping name (ICAO)	BUTYL ACRYLATES, STABILIZED
Proper shipping name (ADN)	BUTYL ACRYLATES, STABILIZED

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	3
Emergency Action Code	3W
Hazard Identification Number (ADR/RID)	39

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Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Cat Y Ship type: 2

SECTION 15: Regulatory information

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

National regulations

Health and Safety at Work etc. Act 1974 (as amended).
Control of Substances Hazardous to Health Regulations 2002 (as amended).
Control of Pollution Act 1974.
Control of Pollution (Special Waste) Regulations 1980 (as amended).
Fire Precautions Act 1971.
EH40/2005 Workplace exposure limits.

EU legislation

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance

The spraying of flammable liquids HSG178.
Workplace Exposure Limits EH40.
Introduction to Local Exhaust Ventilation HS(G)37.
Approved Classification and Labelling Guide (Sixth edition) L131.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Issued by HS&E Manager.

Revision date 08/03/2016

Revision 23

Supersedes date 01/12/2015

SDS number 20214

SDS status Approved.

Hazard statements in full

H226 Flammable liquid and vapour.
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.
H412 Harmful to aquatic life with long lasting effects.

BUTYL ACRYLATE

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.