SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

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

1.1. Product identifier

Trade name
Butylacrylate (stabilized with hydroquinone monomethyl ether)

Article No.
77987081

CAS number
141-32-2

EC number
205-480-7

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

Relevant identified uses
Research and development. Laboratory Chemicals. Manufacture of substances.

Not suitable for use in
Not suitable for human consumption or veterinary purposes.

1.3. Details of the supplier of the safety data sheet

Supplier
Molekula Group

Address
Molekula Ltd, Lingfield Way, Darlington,
DL1 4XX Darlington
United Kingdom

Telephone
+44 (0) 3302 000 333

Email
info@molekula.com

Web site
www.molekula.com

Contact person
Kevin Banks

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

Email
+44 (0) 7769276927

1.4. Emergency telephone number

Poison center/Additional emergency number
0344 892 0111 - National Poisons Information Service (Newcastle Centre)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification
Flammable liquids, hazard category 3
Acute toxicity, oral, hazard category 5
Acute toxicity, dermal, hazard category 4
Acute toxicity, inhalation, hazard category 4
Skin irritation, hazard category 2
Skin sensitisation, hazard category 1
Eye irritation, hazard category 2
Specific Target Organ Toxicity — Single exposure, hazard category 3 - respiratory tract irritation

Hazard statements
H226, H303, H312 + H332, H315, H317, H319, H335

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word
Warning

Hazard statements

H226 Flammable liquid and vapour.
H303 May be harmful if swallowed.
H312 + H332 Harmful in contact with skin or if inhaled.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials.
P261 Avoid breathing vapour.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of water/.
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.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.

2.3. Other hazards

No data available

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
n-butyl acrylate	141-32-2 205-480-7 01-2119453155-43 607-062-00-3	>99 - <100%	Flam. Liq. 3, Acute Tox. 5 - oral, Acute Tox. 4 - dermal, Acute Tox. 4 - inhala-tion, Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, STOT SE 3 - resp. tract irrit.	H226, H303, H312 + H332, H315, H317, H319, H335 - -	D
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether	150-76-5 205-769-8 01-2119541813-40 604-044-00-7	0.001 - 0.002%	Acute Tox. 4 - oral, Skin Sens. 1, Eye Irrit. 2, Aquatic Chronic 3	H302, H317, H319, H412 - -	-

Substance additional information
For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.

Skin contact
IF ON SKIN: Wash with plenty of soap and water. Continue to rinse for at least 15 minutes. Get medical advice/attention if you feel unwell.

Eye contact
Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.

Ingestion
Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Information for doctors
No data available.

4.2. Most important symptoms and effects, both acute and delayed
The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. No special treatment requirement.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Use alcohol resistant foam, carbon dioxide or dry powder to extinguish.

Unsuitable extinguishing media
No specific fire fighting procedure given.

5.2. Special hazards arising from the substance or mixture
Specific hazards: FLAMMABLE.
Containers can burst violently when heated, due to excess pressure build-up.
Vapours may form explosive mixture with air at room temperature.
Carbon monoxide (CO). Carbon dioxide (CO_2). Nitrous gases (NOx). Hydrogen chloride (HCl).
Combustible.
Vapours are heavier than air and may travel along the floor and in the bottom of containers.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for firefighters
Special protective equipment for fire-fighters
Evacuate area. Avoid breathing gas, fume, vapours or spray. Prevent skin contact by maintaining a safe distance and by wearing suitable protective equipment/ clothing. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Butylacrylate (stabilized with hydroquinone monomethyl ether)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours and spray mist and contact with skin and eyes. For personal protection, see section 8. Provide adequate ventilation. Remove sources of ignition. Beware of the explosion danger. Take action to prevent static discharges.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Risk of explosion.

6.3. Methods and material for containment and cleaning up

Collect with absorbent, non-combustible material into suitable containers. Remove sources of ignition. Beware of the explosion danger. Use spark-proof tools and explosion-proof equipment.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

For precautions see section 2.2. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharges. Use spark-proof tools and explosion-proof equipment. Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

General hygiene

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use. Wash skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature. Store in a dry place. Store in a closed container.

Light sensitive.

7.3. Specific end use(s)

No specific usage precautions noted.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

No occupational exposure limit assigned.

DNEL/DMEL

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
n-butyl acrylate (141-32-2/205-480-7)	DNEL	Chronic (long term) Inhalation	11 mg/m³	Workers	Local
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether (150-76-5/205-769-8)	DNEL	Chronic (long term) Inhalation	3 mg/m³	Workers	Systemic

PNEC/PEC

Product/Substance name (CAS No./EC No.)	Type	Environmental compartment	Value
n-butyl acrylate (141-32-2/205-480-7)	PNEC	Freshwater	0.00272 mg/l
n-butyl acrylate (141-32-2/205-480-7)	PNEC	Marine water	0.00027 mg/l
n-butyl acrylate (141-32-2/205-480-7)	PNEC	Intermittent releases (freshwater)	0.0338 mg/kg dwt
n-butyl acrylate (141-32-2/205-480-7)	PNEC	Intermittent releases (marine water)	0.00338 mg/kg dwt
n-butyl acrylate (141-32-2/205-480-7)	PNEC	Sewage Treatment Plant	3.5 mg/l
n-butyl acrylate (141-32-2/205-480-7)	PNEC	Soil	1 mg/kg dwt
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether (150-76-5/205-769-8)	PNEC	Freshwater	0.0136 mg/l
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether (150-76-5/205-769-8)	PNEC	Marine water	0.00136 mg/l

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

Product/Substance name (CAS No./EC No.)	Type	Environmental compartment	Value
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether (150-76-5/205-769-8)	PNEC	Intermittent releases (freshwater)	0.125 mg/kg dwt
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether (150-76-5/205-769-8)	PNEC	Intermittent releases (marine water)	0.0125 mg/kg dwt
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether (150-76-5/205-769-8)	PNEC	Sewage Treatment Plant	10 mg/l
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether (150-76-5/205-769-8)	PNEC	Soil	0.017 mg/kg dwt

8.2. Exposure controls

Personal Protective Equipment Symbols

Eye / face protection
Wear eye protection. Eye glasses with side protection

Hand protection
Wear protective gloves.

Nitrile.
Glove Thickness: 0.4mm
Breakthrough time: 30 minutes

Wash contaminated skin thoroughly after handling.

Other skin protection
Wash skin thoroughly after handling.

Respiratory protection
Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

Environmental exposure controls
Avoid discharge into drains. Risk of explosion.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid

Colour
Colourless.

Odour
Stench

Melting point / freezing point
-64.6 °C

Boiling point or initial boiling point and boiling range
145 °C

Flammability
No data available

Lower and upper explosion limit
No data available

Flash point
38 °C
Method
CC (Closed cup).

Auto-ignition temperature
No data available

Decomposition temperature
No data available

pH
No data available

Kinematic viscosity
No data available

Viscosity, dynamic
0.869 mPa · s
Method
(20°C)

Solubility
Soluble in water.
Method
(1.4g/l , 20°C)

Partition coefficient n-octanol/water
No data available

Vapour pressure
5 mbar
Method
(20°C)

Density and/or relative density
0.894 g/cm³
Method
(25°C)

Relative vapour density
4.4

Explosive properties
Vapours may form explosive mixture with air at room temperature.

Particle characteristics
No data available

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
Vapor/air-mixtures are explosive at intense warming.

10.2. Chemical stability
Stable under normal temperature conditions. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Unstable upon depletion of inhibitor. Hazardous polymerisation

Risk of explosion with: Amines. Strong acids. Strong bases Strong oxidising agents.

10.4. Conditions to avoid

Heat, sparks, flames.

10.5. Incompatible materials

There are no known reactivity hazards associated with this product.

10.6. Hazardous decomposition products

See section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline	Remarks
n-butyl acrylate 141-32-2 / 205-480-7	Acute Toxicity (Oral LD50):	3,150mg/kg	-	-	Rat	-	(External MSDS)
n-butyl acrylate 141-32-2 / 205-480-7	ATE (Dermal)	2,000mg/kg	-	-	-	ATE = Acute Toxicity Estim-ate.	(External MSDS)
n-butyl acrylate 141-32-2 / 205-480-7	Acute Toxicity (Inhalation LC50):	11.2 mg/l (vapours)	-	4 hours	Rat	-	(External MSDS)
mequinol; 4-meth-oxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	LD50	1600 mg/kg	Oral	-	Rat	-	-
mequinol; 4-meth-oxyphenol; hydroquinone	LD50	>2000 mg/kg	Dermal	-	Rat	-	-

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline	Remarks
monomethyl ether 150-76-5 / 205-769-8							

Skin corrosion/irritation

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
n-butyl acrylate 141-32-2 / 205-480-7	Irritating.	Rabbit	(ECHA)
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	No skin irritation.	Rabbit	-

Serious eye damage/irritation

Product / Substance name CAS / EC no.	Result	Duration of exposure	Species	Method / Guideline
n-butyl acrylate 141-32-2 / 205-480-7	Causes eye irritation.	24 hours	Rabbit	(ECHA)
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	Causes serious eye irritation.	-	-	-

Respiratory or skin sensitisation

Product / Substance name CAS / EC no.	Result	Species
n-butyl acrylate	Positive.	Mouse

Product / Substance name CAS / EC no.	Result	Species
141-32-2 / 205-480-7		
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	May cause an allergic skin reaction.	-

Germ cell mutagenicity

Product / Substance name CAS / EC no.	Result	Exposure route	Metabolic activation / Exposure	Species	Method / Guideline
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	Negative.	-	with and without metabolic activation	Salmonella typhimurium	Ames test
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	Negative.	-	with and without metabolic activation	Chinese hamster lung cells	In vitro mammalian cell gene mutation test.
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	Negative.	-	with and without metabolic activation	Human lymphocytes	Mutagenicity (mammal cell test): Chromosome aberration:
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	Negative.	Oral	-	Rat bone marrow	-

STOT-single exposure

Product / Substance name CAS / EC no.	Result	Method / Guideline
n-butyl acrylate 141-32-2 / 205-480-7	May cause respiratory irritation.	Classification according to Regulation (EC) No. 1272/2008: Annex VI

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Remark
n-butyl acrylate 141-32-2 / 205-480-7	LC50	5.2mg/l	96 hours	Onchorhynchus mykiss (Rainbow trout)	(External MSDS)
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	LC50	28.5 mg/l	96 hours	Onchorhynchus mykiss (Rainbow trout)	-

Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Remark
n-butyl acrylate 141-32-2 / 205-480-7	EC50	5.2mg/l	96 hours	Pseudokirchneriella subcapitata	(External MSDS)
mequinol; 4-meth-	EC50	54.7 mg/l	72 hours	Pseudokirchneriella	-

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Remark
oxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8				subcapitata	

Acute crustacean toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Remark
n-butyl acrylate 141-32-2 / 205-480-7	EC50	8.2mg/l	48 hours	Daphnia magna	(US-EPA)
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	EC50	3 mg/l	48 hours	Daphnia magna	-
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	NOEC	0.68 mg/l	21 days	Daphnia magna	-

12.2. Persistence and degradability

Persistence and degradability

Product / Substance name CAS / EC no.	Type of test	Duration	Result	Degradation	Remark
n-butyl acrylate 141-32-2 / 205-480-7	aerobic	28 days	The substance is readily biodegradable.	80 - 90%	(External MSDS)

Product / Substance name CAS / EC no.	Type of test	Duration	Result	Degradation	Remark
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	aerobic	28 days	86%	The product is readily biodegradable.	-

12.3. Bioaccumulative potential

Bioaccumulative potential

Product / Substance name CAS / EC no.	Result
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether 150-76-5 / 205-769-8	unlikely

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose of contents/container in accordance with local regulations.

SECTION 14: Transport information

14.1. UN number

2348

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

14.2. UN proper shipping name

ADR / RID / ADN proper shipping name
BUTYL ACRYLATES, STABILIZED

IMDG proper shipping name
BUTYL ACRYLATES, STABILIZED

IATA proper shipping name
Butyl acrylates, stabilized

14.3. Transport hazard class(es)

Label
ADR/RID/ADN

3

IMDG

3

IATA

3

ADR / RID Class
3

ADR / RID Classification code
F1

ADR / RID hazard identification number
39

IMDG Class
3

IATA Class
3

ADN Class
3

ADN Class Code
F1

14.4. Packing group
ADR / RID / ADN: III
IMDG: III
IATA: III

14.5. Environmental hazards
Not applicable

14.6. Special precautions for user
Special precautions for user
Tunnel restriction code: D/E
Transport category: 3

IMDG EmS
F-E, S-D

14.7. Maritime transport in bulk according to IMO instruments
IBC Instruction: IBC03

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulations
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
This material safety data sheet complies with the requirements of Regulation (EU) 2020/878.

National regulations
No data available

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Butylacrylate (stabilized with hydroquinone monomethyl ether)

Version number: 2.0
Issued: 2024-02-12

SECTION 16: Other information

Phrase meaning

Flam. Liq. 3 - Flammable liquids, hazard category 3
Acute Tox. 5 - oral - Acute toxicity, oral, hazard category 5
Acute Tox. 4 - dermal - Acute toxicity, dermal, hazard category 4
Acute Tox. 4 - inhalation - Acute toxicity, inhalation, hazard category 4
Skin Irrit. 2 - Skin irritation, hazard category 2
Skin Sens. 1 - Skin sensitisation, hazard category 1
Eye Irrit. 2 - Eye irritation, hazard category 2
STOT SE 3 - resp. tract irrit. - Specific Target Organ Toxicity — Single exposure, hazard category 3 - respiratory tract irritation
Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4
Aquatic Chronic 3 - Hazardous to the aquatic environment — Chronic hazard category 3
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H303 May be harmful if swallowed.
H312 + H332 Harmful in contact with skin or if inhaled.
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.