SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 13-Dec-2023 **Revision Number** 1

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

1.1. Product identifier

Product Code(s)	DRE-YA10860500ME
Product Name	1,3-Butadiene 200 µg/mL in Methanol
Form	Not applicable
Unique Formula Identifier (UFI)	GTJR-D0Y6-9009-EC56
Pure substance/mixture	Mixture

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

Recommended use	Laboratory use
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Supplier

LGC Limited
Queens Road
Teddington
Middlesex TW11 0LY
UNITED KINGDOM
:+44 (0) 20 8943 7000
Fax :+44 (0) 20 8943 2767
eMail : gb@lgcstandards.com

Web : www.lgcstandards.com

For further information, please contact

E-mail address sds-request@lgcgroup.com

1.4. Emergency telephone number

Emergency Telephone: For Hazardous Materials or Dangerous Goods Incident
Spill, Leak, Fire Exposure, or Accident
Call CHEMTREC:
USA & Canada 1-800-424-9300
Rest of the world +1 703-741-5970

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DRE-YA10860500ME - 1,3-Butadiene 200 µg/mL in Methanol

Emergency Telephone - §45 - (EC)1272/2008	
Europe	**112**
Austria	No information available
Bulgaria	
Croatia	
Cyprus	
Czech Republic	
Denmark	
France	
Hungary	
Ireland	
Italy	
Lithuania	
Luxembourg	
Netherlands	
Norway	
Portugal	
Romania	
Slovakia	
Slovenia	
Spain	
Sweden	
Switzerland	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to
Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 3 - (H301)
Acute toxicity - Dermal	Category 3 - (H311)
Acute toxicity - Inhalation (Vapours)	Category 3 - (H331)
Germ cell mutagenicity	Category 1B - (H340)
Carcinogenicity	Category 1A - (H350)
Specific target organ toxicity — single exposure	Category 1 - (H370)
Flammable liquids	Category 2 - (H225)

2.2. Label elements

Contains Methanol; Butadiene 1,3

Signal word
Danger

Hazard statements
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H370 - Causes damage to organs
H225 - Highly flammable liquid and vapour

Precautionary Statements - EU (§28, 1272/2008)
P201 - Obtain special instructions before use
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P403 + P235 - Store in a well-ventilated place. Keep cool

2.3. Other hazards

No information available.

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

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

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Methanol	-	-
Butadiene 1,3	-	-

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical nature Mixture of organic compounds.

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Methanol 67-56-1	80 - 100	-	200-659-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%		
Butadiene 1,3 106-99-0	0.1 - 1	-	203-450-8	Flam. Gas 1 (H220) Press. Gas (Liq.) (H280) Muta. 1B (H340) Carc. 1A (H350)			

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Methanol 67-56-1	6200	15840	No data available	41.6976	No data available
Butadiene 1,3 106-99-0	5480	No data available	No data available	No data available	128826.9551

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If breathing has stopped, give artificial respiration. Get medical attention immediately. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapour or mist.

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

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Do not breathe vapour or mist.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Do not breathe vapour or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation.

General hygiene considerations

Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Do not breathe vapour or mist.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up. Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ *	TWA: 200 ppm TWA: 260 mg/m³ STEL 800 ppm STEL 1040 mg/m³ Sk*	TWA: 200 ppm TWA: 266 mg/m³ STEL: 250 ppm STEL: 333 mg/m³ Sk*	TWA: 200 ppm TWA: 260.0 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ Sk*
Butadiene 1,3 106-99-0	TWA: 2.2 mg/m³ TWA: 1 ppm	-	TWA: 2 ppm TWA: 4.5 mg/m³	TWA: 2.2 mg/m³ TWA: 1 ppm	TWA: 1 ppm TWA: 2.2 mg/m³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ Sk*	TWA: 250 mg/m³ Sk* Ceiling: 1000 mg/m³	TWA: 200 ppm TWA: 260 mg/m³ STEL: 400 ppm STEL: 520 mg/m³ Sk*	TWA: 200 ppm TWA: 250 mg/m³ STEL: 250 ppm STEL: 350 mg/m³ Sk*	TWA: 200 ppm TWA: 270 mg/m³ STEL: 250 ppm STEL: 330 mg/m³ Sk*
Butadiene 1,3 106-99-0	-	TWA: 10 mg/m³ Ceiling: 2.2 mg/m³ *	TWA: 1 ppm TWA: 2.2 mg/m³	TWA: 0.5 ppm TWA: 1 mg/m³ STEL: 5 ppm STEL: 10 mg/m³	TWA: 1 ppm TWA: 2.2 mg/m³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ STEL: 1000 ppm STEL: 1300 mg/m³ Sk*	TWA: 100 ppm TWA: 130 mg/m³ Sk*	TWA: 100 ppm TWA: 130 mg/m³ Peak: 200 ppm Peak: 260 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 325 mg/m³ Sk*	TWA: 260 mg/m³ TWA: 200 ppm Sk*
Butadiene 1,3 106-99-0	-	-	-	TWA: 1 ppm TWA: 2.2 mg/m³	TWA: 2.2 mg/m³
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ STEL: 600 ppm STEL: 780 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ Sk*	TWA: 200 ppm TWA: 262 mg/m³ STEL: 250 ppm STEL: 328 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ Sk*
Butadiene 1,3 106-99-0	TWA: 1 ppm TWA: 2.2 mg/m³ STEL: 3 ppm STEL: 6.6 mg/m³	-	TWA: 2 ppm TWA: 4.4 mg/m³	TWA: 2.2 mg/m³ TWA: 1 ppm	TWA: 0.5 ppm TWA: 1 mg/m³ STEL: 5 ppm STEL: 10 mg/m³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ Sk*	TWA: 100 ppm TWA: 133 mg/m³ Sk*	TWA: 100 ppm TWA: 130 mg/m³ STEL: 150 ppm STEL: 162.5 mg/m³ Sk*	TWA: 100 mg/m³ STEL: 300 mg/m³ Sk* Prohibited - substances or mixtures containing

					Methanol in weight concentration >3%;except fuels used in the model building, powerboating, fuel cells and biofuels
Butadiene 1,3 106-99-0	-	-	TWA: 2 mg/m³	TWA: 1 ppm TWA: 2.2 mg/m³ STEL: 3 ppm STEL: 4.4 mg/m³	TWA: 2.2 mg/m³

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm Sk*	TWA: 200 ppm TWA: 260 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ STEL: 800 ppm STEL: 1040 mg/m³ Sk*	TWA: 200 ppm TWA: 266 mg/m³ Sk*
Butadiene 1,3 106-99-0	TWA: 1 ppm TWA: 2.2 mg/m³	TWA: 10 ppm TWA: 22 mg/m³ STEL: 1000 mg/m³	TWA: 5 ppm TWA: 11 mg/m³ STEL: 25 ppm STEL: 55 mg/m³	TWA: 1 ppm TWA: 2.2 mg/m³	TWA: 2 ppm TWA: 4.5 mg/m³

Chemical name	Sweden	Switzerland	United Kingdom
Methanol 67-56-1	NGV: 200 ppm NGV: 250 mg/m³ Vägledande KGV: 250 ppm Vägledande KGV: 350 mg/m³ Sk*	TWA: 200 ppm TWA: 260 mg/m³ STEL: 400 ppm STEL: 520 mg/m³ Sk*	TWA: 200 ppm TWA: 266 mg/m³ STEL: 250 ppm STEL: 333 mg/m³ Sk*
Butadiene 1,3 106-99-0	NGV: 0.5 ppm NGV: 1 mg/m³ Bindande KGV: 5 ppm Bindande KGV: 10 mg/m³	TWA: 2 ppm TWA: 4.4 mg/m³	TWA: 1 ppm TWA: 2.2 mg/m³ STEL: 3 ppm STEL: 6.6 mg/m³

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Methanol 67-56-1	-	-	-	7.0 mg/g Creatinine - urine (Methanol) - at the end of the work shift	0.47 mmol/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol end of shift)

Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
Methanol	-	-	- urine (Methanol) -	15 mg/L (urine -	15 mg/L (urine -

67-56-1			end of shift	Methanol end of shift) 15 mg/L (urine - Methanol for long-term exposures: at the end of the shift after several shifts) 15 mg/L - BAT (end of exposure or end of shift) urine	Methanol end of shift) 15 mg/L (urine - Methanol for long-term exposures: at the end of the shift after several shifts)
Butadiene 1,3 106-99-0	-	-	-	400 µg/g Creatinine - BAR (end of exposure or end of shift) urine 400 µg/g Creatinine - BAR (for long-term exposures: at the end of the shift after several shifts) urine <2 µg/g Creatinine - BAR (end of exposure or end of shift) urine <2 µg/g Creatinine - BAR (for long-term exposures: at the end of the shift after several shifts) urine 600 µg/g Creatinine - (end of exposure or end of shift) - urine 1000 µg/g Creatinine - (end of exposure or end of shift) - urine 1600 µg/g Creatinine - (end of exposure or end of shift) - urine 2900 µg/g Creatinine - (end of exposure or end of shift) - urine 4200 µg/g Creatinine - (end of exposure	-

				or end of shift) - urine 600 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 1000 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 1600 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 2900 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 4200 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 10 µg/g Creatinine - (end of exposure or end of shift) - urine 20 µg/g Creatinine - (end of exposure or end of shift) - urine 40 µg/g Creatinine - (end of exposure or end of shift) - urine 80 µg/g Creatinine - (end of exposure or end of shift) - urine 120 µg/g Creatinine - (end of exposure or end of shift) - urine 10 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) -	

				urine 20 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 40 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 80 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine 120 µg/g Creatinine - (long-term exposure: at the end of the shift after several shifts) - urine	

Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII
Methanol 67-56-1	30 mg/L (urine - Methanol end of shift) 940 µmol/L (urine - Methanol end of shift)	15 mg/L (urine - Methanol end of shift)	-	15 mg/L - urine (Methanol) - end of shift
Butadiene 1,3 106-99-0	-	2.5 mg/L (urine - 1,2-Dihydroxy-4-(N-acetyl cysteinyl)-butane end of shift) 2.5 pmol/g hemoglobin (blood - Mixture of N-1 and N-2-(hydroxybutenyl)valine hemoglobin adducts not critical)	-	2.5 mg/L - urine (1,2-Dihydroxy-4-(N-acetylcysteinyl)-butane) - end of shift 2.5 pmol/g hemoglobin - blood (Mixture of N-1 and N-2-(hydroxybutenyl)valine hemoglobin adducts) - not critical

Chemical name	Latvia	Luxembourg	Romania	Slovakia
Methanol 67-56-1	-	-	6 mg/L - urine (Methanol) - end of shift	30 mg/L (urine - Methanol end of exposure or work shift) 30 mg/L (urine - Methanol after all work shifts)

Chemical name	Slovenia	Spain	Switzerland	United Kingdom
Methanol 67-56-1	15 mg/L - urine (Methanol) - at the end of the work shift; for	15 mg/L (urine - Methanol end of shift)	30 mg/L (urine - Methanol end of shift, and after several shifts (for	-

	long-term exposure: at the end of the work shift after several consecutive workdays		long-term exposures)) 936 µmol/L (urine - Methanol end of shift, and after several shifts (for long-term exposures))	
Butadiene 1,3 106-99-0	2900 µg/g Creatinine - urine (3,4-Dihydroxybutyl mercapturic acid) - at the end of the work shift; in case of prolonged exposure, at the end of the work shift after several consecutive working hours 80 µg/g Creatinine - urine (2-Hydroxy-3-butenylmercapturic acid) - at the end of the work shift; in case of prolonged exposure, at the end of the work shift after several consecutive working hours	2.5 mg/L (urine - 1,2-Dihydroxy-4-(N-acetyl cysteinyl)-butane end of shift) 2.5 pmol/g hemoglobin (blood - Mixture of N-1 and N-2-(hydroxybutenyl)valine not critical)	-	-

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection Tight sealing safety goggles. Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection Wear protective butyl rubber gloves. Wear suitable gloves. Impervious gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

Skin and body protection Long sleeved clothing. Chemical resistant apron. Antistatic boots. Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations	Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Do not breathe vapour or mist.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	colourless
Odour	Alcohol.
Odour threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point	-98 °C	None known
Initial boiling point and boiling range	64.72 °C	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	50 Vol% - 665 g/m³	
Lower flammability or explosive limits	6 Vol% - 80 g/m³	
Flash point	11 °C	None known
Autoignition temperature	464 °C	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	0.544 - 0.59 mPa s	@ 25°C
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	-0.77	None known
Vapour pressure	128 hPa	@ 20°C
Relative density	0.791	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	1.1	None known
Particle characteristics		
Particle Size	No information available	

Particle Size Distribution No information available

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Toxic by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Toxic in contact with skin. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	100.20 mg/kg
ATEmix (dermal)	300.60 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	99,999.00 mg/l
ATEmix (inhalation-vapour)	3.01 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
Butadiene 1,3	= 5480 mg/kg (Rat)		= 285 g/m^3 (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	European Union
Butadiene 1,3	Muta. 1B

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Butadiene 1,3	Carc. 1A

Reproductive toxicity No information available.

STOT - single exposure Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methanol	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Methanol	-0.77
Butadiene 1,3	1.99

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
Methanol	The substance is not PBT / vPvB
Butadiene 1,3	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	Methanol mixture
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, Methanol mixture, 3 (6.1), II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	A113
ERG Code	3L

IMDG

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	Methanol mixture
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, Methanol mixture, 3 (6.1), II, (11°C c.c.)
14.5 Marine pollutant	NP
14.6 Special precautions for user	

Special Provisions	279
EmS-No.	F-E, S-D No information available
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	Methanol mixture
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, Methanol mixture, 3 (6.1), II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	279
Classification code	FT1

ADR

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	Methanol mixture
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, Methanol mixture, 3 (6.1), II, (D/E)
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	279
Classification code	FT1
Tunnel restriction code	(D/E)

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Methanol 67-56-1	RG 84	-
Butadiene 1,3 106-99-0	RG 99	-

Germany

Water hazard class (WGK) strongly hazardous to water (WGK 3)
TA Luft (German Air Pollution Control Regulation)

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Carcinogens	Netherlands - List of Reproductive Toxins
Butadiene 1,3	Present	Present	-

Poland **SDS created according to the following Polish regulation: Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency (EC) as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, as amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classifying chemical substances and their mixtures (Journal of Laws of 2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling packaging of hazardous substances and mixtures and some mixtures (Journal of Laws of 2012, item 445). Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286). Announcement of the Minister of Economy, Labor and Social Policy of August 28, 2003 on the publication of the unified text of the Ordinance of the Minister of Labor and Social Policy on general health and safety at work regulations (Journal of Laws of 2003, No. 169, item 1650) . Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the presence of chemical agents in the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of December 30, 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the management of packaging and packaging waste, Journal of Laws 2013, item 888). Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).**

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors
Not applicable

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Methanol - 67-56-1	69. 75.	
Butadiene 1,3 - 106-99-0	28. 29.	

Persistent Organic Pollutants
Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)
H2 - ACUTE TOXIC
H3 - STOT SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE
P5a - FLAMMABLE LIQUIDS
P5b - FLAMMABLE LIQUIDS
P5c - FLAMMABLE LIQUIDS

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Methanol - 67-56-1	500	5000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment is not required for this substance

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H220 - Extremely flammable gas
H225 - Highly flammable liquid and vapour
H280 - Contains gas under pressure; may explode if heated
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H370 - Causes damage to organs

Legend
SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method

Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable liquids	On basis of test data

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 13-Dec-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
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End of Safety Data Sheet