

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)


Revision: 26.02.2025

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

- **1.1 Product identifier**
- **Creation date** 24.06.2011
- **Trade name:** Betaine 5M
- **Article number:** 0265
- **Registration number**
A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.
- **UFI:** 0G20-00Q0-R00E-8P6U
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Chemical for research, development, manufacturing, laboratory chemical for analysis.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Biosolve Chimie
20 Rue Roger Husson, 57260 Dieuze, France
Tel: +33 3 878 675 80/81/82/83/84/85
Email: info@biosolvechimie.com

Biosolve B.V.
Kerkhofstraat 21, 5554HG Valkenswaard, the Netherlands.
Tel: +31-(0)40-2071300
Fax: +31-(0)40-2048537
Email: info@biosolve-chemicals.com
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**
Contact list of appointed bodies for information relating to emergency health response, according to Art. 45(1) Reg. (EC) No 1272/2008.
See at <https://poisoncentres.echa.europa.eu/appointed-bodies>
Help desk: <http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks>.
For more information see section 16.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 **GHS07**

Acute Tox. 4 H302 Harmful if swallowed.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 1)

· Hazard pictograms



GHS07

· Signal word Warning

· Hazard statements

H302 Harmful if swallowed.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

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

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 107-43-7	Betaine	 Acute Tox. 4, H302	50-75%
EINECS: 203-490-6	Oxyneurine		
	(Carboxymethyl)trimethylammoniuminner salt		

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** Call for a doctor immediately.

(Contd. on page 3)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 2)

- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: 2 - 8 °C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Recommended storage temperature 2 - 8 °C.
- **7.3 Specific end use(s)** No further relevant information available.

EU

(Contd. on page 4)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not required.

· **Hand protection**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection** Goggles recommended during refilling

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· **General Information**

· **Physical state**

Liquid

· **Colour:**

Light yellow

· **Odour:**

Odourless

· **Odour threshold:**

No data available.

· **Melting point/freezing point:**

No data available.

· **Boiling point or initial boiling point and boiling range**

100 °C

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**

· **Lower:**

No data available

· **Upper:**

No data available

(Contd. on page 5)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 4)

· Flash point:	Not applicable.
· Decomposition temperature:	No data available
· pH	No data available
· Viscosity:	
· Dynamic:	Not determined.
· Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	No data available
· Vapour pressure at 20 °C:	23 hPa
· Density and/or relative density	
· Density:	Not determined.
· Relative density	No data available
· Vapour density	No data available

· 9.2 Other information	
· Appearance:	
· Form:	Solution
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Water:	41.0 %
· Solids content:	59.0 %
· Change in condition	
· Evaporation rate	No data available

· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void

(Contd. on page 6)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 5)

· **Desensitised explosives** Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.

· **LD/LC50 values relevant for classification:**

CAS: 107-43-7 Betaine
Oxyneurine
(Carboxymethyl)trimethylammoniuminner salt

Oral	LD50	830 mg/kg (rat) (Intravenous)
------	------	-------------------------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

(Contd. on page 7)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 6)

· 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects

· Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

HP6	Acute Toxicity
-----	----------------

· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN number or ID number

· **ADR, ADN, IMDG, IATA** Void

· 14.2 UN proper shipping name

· **ADR, ADN, IMDG, IATA** Void

· 14.3 Transport hazard class(es)

· **ADR, ADN, IMDG, IATA**

· **Class** Void

· 14.4 Packing group

· **ADR, IMDG, IATA** Void

· 14.5 Environmental hazards:

· **Marine pollutant:** No

· 14.6 Special precautions for user

Not applicable.

(Contd. on page 8)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 7)

- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

SECTION 15: Regulatory information

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

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1148**

- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H302 Harmful if swallowed.

- **Department issuing SDS:** Product safety department

- **Contact:**

Austria Vergiftungsinformationszentrale (VIZ) (+43) 1 406 43 43

Belgium Centre Antipoisons (+32) 070 245 245

Antigifcentrum 070 245 245 (+32)

Bulgaria Национален токсикологичен информационен център

Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов" (+359) 2 9154 233

(Contd. on page 9)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 8)

Croatia Centar za kontrolu otrovanja (+385) 01 2348 342

Cyprus Υπουργείο Εργασίας, Πρόνοιας και Κοινωνικών Ασφαλίσεων
Τμήμα Επιθεώρησης Εργασίας 1401

Czech Republic Toxikologické informační středisko (+420) 224 919 293, +(420) 224 915 402

Denmark Giftlinjen: +45 8212 1212

Estonia Terviseameti mürgistusteabekeskuse 16662, (+372) 7943 794

Finland Myrkytystietokeskus 0800 147 111, 09 471 977

France ORFILA (INRS) : + 33 (0)1 45 42 59 59

Centres Antipoison et de Toxicovigilance

ANGERS: 02 41 48 21 21

BORDEAUX: 05 56 96 40 80

LILLE: 0800 59 59 59

LYON: 04 72 11 69 11

MARSEILLE: 04 91 75 25 25

NANCY: 03 83 22 50 50

PARIS: 01 40 05 48 48

STRASBOURG: 03 88 37 37 37

TOULOUSE: 05 61 77 74 47

Germany Giftnotruf der Charité, Berlin: 030/19240

Giftinformationszentrum-Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ-Nord) :0551/19 240

Informationszentrale gegen Vergiftungen Zentrum für Kinderheilkunde Universitätsklinikum Bonn: 0228/19240

Giftnotruf Erfurt Gemeinsames Giftinformationszentrum der Länder Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt und Thüringen: 0361/730 730

Informations- und Beratungszentrum für Vergiftungsfälle Klinik für Kinder- und Jugendmedizin Universitätsklinikum des Saarlandes: 06841/19240

Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen - Klinische Toxikologie - Universitätsmedizin der Johannes Gutenberg-Universität Mainz: 06131/19240

Vergiftungs-Informations-Zentrale Zentrum für Kinder- und Jugendmedizin Universitätsklinikum: 0761/19240

Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik: 089/19240

Great Britain Members of the public seeking specific information on poisons should contact: In England and Wales: NHS 111 - dial 111 In Scotland: NHS 24 - dial 111

Greece Κέντρο Δηλητηριάσεων (+30) 2107793777

Hungary Országos Kémiai Biztonsági Intézet (OKBI) +(36)-80-201-199

Iceland LANDSPÍTALI - THE NATIONAL UNIVERSITY HOSPITAL Tel. (+354) 543 1000

(Contd. on page 10)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 9)

Ireland National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

Italy Istituto Superiore di Sanità (ISS) +390649906140
CAV "Ospedale Pediatrico Bambino Gesù" – Roma Tel. (+39) 06.6859.3726
CAV "Azienda Ospedaliera Università di Foggia" – Foggia Tel. 800.183.459
CAV "Azienda Ospedaliera A. Cardarelli" – Napoli Tel. (+39) 081.545.3333
CAV Policlinico "Umberto I" – Roma Tel. (+39) 06.4997.8000
CAV Policlinico "A. Gemelli" – Roma Tel. (+39) 06.305.4343
CAV Azienda Ospedaliera "Careggi" U.O. Tossicologia Medica – Firenze Tel. (+39) 055.794.7819
CAV Centro Nazionale di Informazione Tossicologica – Pavia Tel. (+39) 0382.24.444
CAV Ospedale Niguarda – Milano Tel. (+39) 02.66.1010.29
CAV Azienda Ospedaliera Papa Giovanni XXIII – Bergamo Tel. 800.88.33.00
CAV Centro antiveneni Veneto – Verona Tel. 800.011.858

Latvia Latvijas Vides, ģeoloģijas un meteoroloģijas centrs (+371) 67032600

Lithuania Apsinuodijimų informacijos biuras +370 (5) 2362052

Luxembourg Antigifcentrum / Centre antipoisons (+352) 8002 5500

The Netherlands Nationaal Vergiftigingen Informatie +31 (0)88 755 8000

Norway Giftinformasjonen 22 59 13 00

Poland Biuro do spraw Substancji Chemicznych +48 42 2538 400

Portugal Centro de informação antivenenos 800 250 250

Romania Institutul Național de Sănătate Publică +40213183606

Slovakia Národné toxikologické informačné centrum (NTIC) (+421) 2 5477 4166

Slovenia Urad Republike Slovenije za kemikalije +38614006051

Spain Instituto Nacional de Toxicología y Ciencias Forenses (INTCF) (+34) 91 562 04 20

Sweden Giftinformationscentralen (+46) 10 456 6700

Switzerland Tox Info Suisse 24-h-Notfallnummer: 145 (aus dem Ausland: +41 44 251 51 51) Auskunft: +41 44 251 66 66

• **Date of previous version:** 19.10.2022

• **Version number of previous version:** 5

• **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

(Contd. on page 11)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 26.02.2025

Trade name: Betaine 5M

(Contd. of page 10)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

· *** Data compared to the previous version altered.**