Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

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

· **Product identifier**

· **Trade name: 1-Methoxy-2-Propanol >99%**

· **Article number:** 20-5700-25
· **CAS Number:**
107-98-2
· **EC number:**
203-539-1
· **Index number:**
603-064-00-3
· **Registration number** 01-2119457435-35
· **Relevant identified uses of the substance or mixture and uses advised against**
Use as an intermediate; use in coatings (solvent based); use in coatings (solvent based); use in cleaning agents; use in agrochemicals; use in paints, coatings (water based); Use in cosmetics; use in de-icing products.
· **Sector of Use**
SU0 Other
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
SU9 Manufacture of fine chemicals
SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
· **Product category**
PC4 Anti-Freeze and de-icing products
PC9a Coatings and paints, thinners, paint removers
PC35 Washing and cleaning products (including solvent based products)
· **Process category**
PROC1 Use in closed process, no likelihood of exposure
PROC2 Use in closed, continuous process with occasional controlled exposure
PROC3 Use in closed batch process (synthesis or formulation)
PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC7 Industrial spraying
PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC10 Roller application or brushing
PROC11 Non industrial spraying
PROC13 Treatment of articles by dipping and pouring
PROC14 Production of preparations or articles by tabletting, compression, extrusion, pelletisation
PROC15 Use as laboratory reagent
PROC19 Hand-mixing with intimate contact and only PPE available
· **Environmental release category**
ERC1 Manufacture of substances
ERC2 Formulation of preparations
ERC4 Industrial use of processing aids in processes and products, not becoming part of articles
ERC6a Industrial use resulting in manufacture of another substance (use of intermediates)
ERC8a Wide dispersive indoor use of processing aids in open systems
ERC8d Wide dispersive outdoor use of processing aids in open systems
· **Application of the substance / the preparation** Laboratory chemical

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Severn Biotech Ltd.
Unit 2,

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 1)

Park Lane,
Kidderminster,
Worcestershire.
DY11 6TJ
UK
Tel: 0044 1562 825286
Fax: 0044 1562 825284
email: info@severnbiotech.com

· **Further information obtainable from:** Product safety department.
· **Emergency telephone number:** Tel: 0044 1562 825286 (not 24 hours)

2 Hazards identification

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

GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

R10-67: Flammable. Vapours may cause drowsiness and dizziness.
· **Information concerning particular hazards for human and environment:** Has a narcotizing effect.

· **Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
· **Hazard pictograms** GHS02, GHS07
· **Signal word** Warning
· **Hazard statements**
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
· **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe mist/vapours/spray.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 2)

3 Composition/information on ingredients

· **Chemical characterization: Substances**
· **CAS No. Description**
107-98-2 1-Methoxy-2-propanol
· **Identification number(s)**
· **EC number:** 203-539-1
· **Index number:** 603-064-00-3

4 First aid measures

· **Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
DO NOT DELAY!
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
· **Information for doctor:**
No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture**
Above 38 degs. C explosive vapour/air mixtures may be formed.
Container may rupture from gas generation in a fire situation.
Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.
Vapours are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.
Flammable mixtures may exist within the vapour space of containers at room temperature.
Flammable concentrations of vapour can accumulate at temperatures above flash point.
Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.
· **Advice for firefighters**
· **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 3)

Wear fully protective suit.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep ignition sources away - no smoking.
Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.
· **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Do not allow to penetrate the ground/soil.
· **Methods and material for containment and cleaning up:**
Do not use combustible materials such as paper towels to clean up spills.
Absorb liquid components with liquid-binding material.
Send for recovery or disposal in suitable receptacles.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Prevent formation of aerosols.
Ensure good ventilation/exhaustion at the workplace.
Safety showers and eye wash facilities should be available at the work area.
Avoid direct contact (skin contact, ingestion and/or inhalation of fume/mist/dust) with the product.
Welding and other hot work operations in the work area must only be permitted under supervision.
Never use air pressure for transferring product.
Check for peroxides prior to distillation; eliminate if found.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
· **Information about storage in one common storage facility:**
Do not store together with acids.
Store away from oxidizing agents.
Do not store together with alkalis (caustic solutions).
· **Further information about storage conditions:**
Keep container tightly sealed.
Store in a bunded area.
Store in cool, dry conditions in well sealed receptacles.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 4)

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
107-98-2 1-Methoxy-2-propanol	
WEL	Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm Sk

· **DNELs**

WOKERS

Acute / short-term exposure - local effects

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 553.5 mg/m³

Long-term exposure - systemic effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 50.6 mg/kg bw/day

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 369 mg/m³

GENERAL POPULATION

Long-term exposure - systemic effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 18.1 mg/kg bw/day

Inhalation DN(M)EL

- DNEL (Derived No Effect Level) ; 43.9 mg/m³

Oral DN(M)EL

- DNEL (Derived No Effect Level): 3.3 mg/kg bw/day

· **PNECs**

PNEC aqua (freshwater): 10 mg/L
PNEC aqua (marine water): 1 mg/L
PNEC aqua (intermittent releases): 100 mg/L
PNEC STP: 100 mg/L
PNEC sediment (freshwater): 52.3 mg/kg sediment dw
PNEC sediment (marine water): 5.2 mg/kg sediment dw
PNEC soil: 5.49 mg/kg soil dw

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

· **Exposure controls**

· **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.

· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
Do not eat, drink, smoke or sniff while working.
A safe system of work must be formulated and followed to ensure safe working with this product.
Relevant workers must receive suitable and sufficient training and supervision.
Take note of assigned Workplace Exposure Limits.
Ensure that eyewash stations and safety showers are close to the workstation location.

· **Respiratory protection:**

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 5)

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 ºC)

· **Protection of hands:**
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.
Preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL").

· **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 protection:**

Tightly sealed goggles

· **Body protection:** Solvent resistant protective clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Fluid
Colour:	Colourless
· **Odour:**	Alcohol-like
· **Odour threshold:**	Not determined.
· **pH-value (200 g/l) at 20 °C:**	4-7
· **Change in condition**	
Melting point/Melting range:	-96 °C
Boiling point/Boiling range:	120 °C
· **Flash point:**	31 °C
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	287 °C
· **Decomposition temperature:**	Not determined.
· **Self-igniting:**	Not determined.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Explosion limits:**	
Lower:	1.48 Vol %
Upper:	13.74 Vol %
· **Vapour pressure at 20 °C:**	12 hPa
· **Density at 20 °C:**	0.92 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 6)

· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Fully miscible.
· **Partition coefficient (n-octanol/water):**	-0.43 log POW
· **Viscosity:**	
Dynamic at 20 °C:	1.9 mPas
Kinematic:	Not determined.
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity**
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Check for peroxides prior to distillation; eliminate if found.
· **Possibility of hazardous reactions**
Do not distill to dryness. Product can oxidise at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:**
Strong acids and oxidising agents
Strong bases.
· **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Aldehydes. Ketones. Organic acids.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
Inhalative	LC50/4 h	6 mg/l (rat)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Subacute to chronic toxicity:** Effects of long-term or repeated exposure: The liquid defats the skin.
· **Additional toxicological information:**

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 7)

Routes of exposure: The substance can be absorbed into the body by inhalation of its aerosol or vapour, through the skin and by ingestion.

Inhalation risk: A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20 degs. C.

Effects of short-term exposure: The substance and the vapour in high concentrations are irritating to the eyes, skin and respiratory tract. Exposure to very high concentrations could cause depression of the central nervous system.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
EC50	>20000 mg/kg (daphnia)

· **Persistence and degradability** biodegradable
· **Behaviour in environmental systems:**
· **Bioaccumulative potential** Product is not expected to bioaccumulate.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.
Contact waste processors for recycling information.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
· **European waste catalogue**
Waste key numbers in accordance with the European Waste catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

· **Uncleaned packaging:**
· **Recommendation:**
Disposal must be made according to official regulations.
Container remains hazardous when empty. Continue to observe all precautions.
Containers, even those that are “empty,” may contain residues that can develop flammable vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.
Do not mix with other waste streams.

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.11.2012 Revision: 02.11.2012

Trade name: 1-Methoxy-2-Propanol >99%

(Contd. of page 8)

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

14 Transport information

· **UN-Number**	
· **ADR, IMDG, IATA**	UN3092
· **UN proper shipping name**	
· **ADR**	3092 1-METHOXY-2-PROPANOL
· **IMDG, IATA**	1-METHOXY-2-PROPANOL
· **Transport hazard class(es)**	
· **ADR, IMDG, IATA**	

· **Class**	3 Flammable liquids.
· **Label**	3
· **Packing group**	
· **ADR, IMDG, IATA**	III
· **Environmental hazards:**	
· **Marine pollutant:**	No
· **Special precautions for user**	Warning: Flammable liquids.
· **Danger code (Kemler):**	30
· **EMS Number:**	F-E,S-D
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	5L
· **Transport category**	3
· **Tunnel restriction code**	D/E
· **UN "Model Regulation":**	UN3092, -METHOXY-2-PROPANOL, 3, III

15 Regulatory information

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

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.