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

· Product identifier

· Trade name: Destain solution · Article number: 30-40-10

· Registration number

Mixture

Methanol: 01-2119433307-44 Acetic acid: 01-2119475328-30

· Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

- · Application of the substance / the preparation Laboratory product
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Severn Biotech Ltd.

Unit 2,

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. 2 H225 Highly flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 health hazard

STOT SE 1 H370 Causes damage to organs.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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



T; Toxic

R23/24/25-39/23/24/25:

Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

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Xi; Irritant

R36/38: Irritating to eyes and skin.

F; Highly flammable

R11: Highly flammable.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- · Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- · Hazard pictograms GHS02, GHS06, GHS08
- · Signal word Danger
- · Hazard-determining components of labelling:

Methanol

· Hazard statements

H225 Highly flammable liquid and vapour.

H331 Toxic if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H370 Causes damage to organs.

· Precautionary statements

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

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do no eat, drink or smoke when using this product.

P260 Do not breathe mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 67-56-1	Methanol	25-50%
EINECS: 200-659-6	☑ T R23/24/25-39/23/24/25; ☑ F R11	
	♦ Flam. Liq. 2, H225; ♦ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ♦ STOT SE 1, H370	
CAS: 64-19-7	Acetic acid	2.5-10%
EINECS: 200-580-7	፫ C R35	
	R10	
	♦ Flam. Liq. 3, H226; ♦ Skin Corr. 1A, H314	
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· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

DO NOT DELAY!

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· 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:

DO NOT DELAY!

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

DO NOT DELAY!

Wash mouth out with water

Do not induce vomiting; call for medical help immediately.

Rinse mouth immediately and then drink plenty of water, induce vomiting, seek medical attention.

Administer 50 ml of pure ethanol in a drinkable concentration.

· Information for doctor:

Effects may be delayed.

ANTIDOTE: ethanol may inhibit methanol metabolism.

Single large oral doses may result in such adverse effects as:, disturbance of vision, skin irritation

Treatment: Symptomatic treatment (decontamination, vital functions).

· Most important symptoms and effects, both acute and delayed

Headache

Dizziness

Unconsciousness

Nausea

· 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.

· Special hazards arising from the substance or mixture

Highly flammable.

Vapour/air mixtures are explosive.

- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

· Additional information Cool endangered receptacles with water spray.

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(Contd. of page 3)

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep ignition sources away - no smoking.

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course.

· Methods and material for containment and cleaning up:

Send for recovery or disposal in suitable receptacles.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· 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

Store in cool, dry place in tightly closed receptacles.

Avoid splashes or spray in enclosed areas.

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.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Welding and other hot work operations in the work area must only be permitted under supervision.

· Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

Closed system, ventilation, explosion-proof electrical equipment and lighting.

Do NOT use compressed air for filling, discharging, or handling.

Use non-sparking handtools.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Prevent any seepage into the ground.

Store in a cool location.

· Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from foodstuffs.

· Further information about storage conditions:

Store receptacle in a well ventilated area.

Store under lock and key and out of the reach of children.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Store in a bunded area.

· Specific end use(s) No further relevant information available.

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8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

67-56-1 Methanol

WEL Short-term value: 333 mg/m³, 250 ppm Long-term value: 266 mg/m³, 200 ppm

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- · 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:

Do not eat, drink, smoke or sniff while working.

Storing food in the working area is prohibited.

A safe system of work must be formulated and followed to ensure that workers who may be pregnant or breastfeeding do not come into direct contact with the product.

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.

Depending on the degree of exposure, periodic medical examination is suggested.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:



Protective gloves

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 protection:



Tightly sealed goggles

· Body protection: Solvent resistant protective clothing

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9 Physical and chemical proper	rties
· Information on basic physical and	
General Information	chemical properties
· Appearance:	
Form:	Fluid
Colour:	Colourless
· Odour:	Alcohol-like
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	64 °C
· Flash point:	11 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	455 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	4.0 Vol %
Upper:	44.0 Vol %
· Vapour pressure at 20 °C:	128 hPa
Density at 20 °C:	0.9 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
water:	Fully miscible.
· Partition coefficient (n-octanol/wat	er): Not determined.
· Viscosity:	
Dynamic:	Not determined.
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.

The vapour mixes well with air, explosive mixtures are easily formed.

- · Possibility of hazardous reactions Reacts violently with oxidants causing fire and explosion hazard.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: Strong oxidising agents.
- · Hazardous decomposition products: Carbon monoxide and carbon dioxide
- · Additional information: Burns with nonluminous bluish flame.

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11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values relevant for classification:

67-56-1 Methanol

Oral LD50 >2000 mg/kg (rat)
Dermal LD50 >5000 mg/kg (rabbit)

- Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Other information (about experimental toxicology):

ROUTES OF EXPOSURE: The component substances can be absorbed into the body by inhalation and through the skin and by ingestion.

INHALATION RISK: A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20 °C.

· Subacute to chronic toxicity:

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: Repeated or prolonged contact with skin may cause dermatitis. Methanol may have effects on the central nervous system, resulting in persistent or recurring headaches and impaired vision.

Depending on the degree of exposure, periodic medical examination is suggested.

· Additional toxicological information:

Depending on the degree of exposure, periodic medical examination is suggested.

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Toxic

Irritant

Prolonged or repeated skin contact may cause dermatitis.

Methanol can be absorbed through the skin producing systemic effects.

Inhalation of vapours is the most common route of entry.

Methanol may cause effects on the central nervous system, resulting in loss of consciousness. Exposure may result in blindness and death. The effects may be delayed. Medical observation is indicated. Depending on the severity of the exposure and promptness of treatment, the patient may recover completely or may suffer permanent blindness, visual disturbances and/or nervous effects.

Methanol is only slowly eliminated from the body and should be regarded as a cumulative poison. A single exposure may have little effect; however, repeated exposures may result in the accumulation of dangerous levels.

12 Ecological information

- · Toxicity
- · Aquatic toxicity:

67-56-1 Methanol

EC50 >10000 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) (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.

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- $\cdot \ Results \ of \ PBT \ and \ vPvB \ assessment$
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Contact waste processors for recycling information.

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

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.

· 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:

Container remains hazardous when empty. Continue to observe all precuations.

Do not mix with other waste streams.

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.

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

UN-Number ADR, IMDG, IATA	UN1992
UN proper shipping name ADR	1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANO
IMDG, IATA	ACETIC ACID, GLACIAL) FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANO) ACETIC ACID, GLACIAL)
Transport hazard class(es)	
ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3+6.1
Packing group	
ADR, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
	Warning: Flammable liquids.

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	(Contd. of page 8
· Danger code (Kemler):	336
· EMS Number:	F-E,S-D
· Segregation groups	Acids
· Transport in bulk according to Annex	II of
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Transport category	2
Tunnel restriction code	D/E
· UN ''Model Regulation'':	UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S (METHANOL, ACETIC ACID, GLACIAL), 3 (6.1), II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · National regulations:

Class	Share in %
Wasser	50.0
I	40.0
II	10.0

· 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.

· Relevant phrases

	· Kelevalit pili ases		
	H225	Highly flammable liquid and vapour.	
	H226	Flammable liquid and vapour.	
	H301	Toxic if swallowed.	
	H311	Toxic in contact with skin.	
	H314	Causes severe skin burns and eye damage.	
	H331	Toxic if inhaled.	
	H370	Causes damage to organs.	
	R10	Flammable.	
	R11	Highly flammable.	
	R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.	
	R35	Causes severe burns.	
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with			
		swallowed.	

· Department issuing MSDS: Product safety department.