

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

1.1 Product identifiers

Product name : GoldiSol
Product number : GTS05
Brand : Meridian Biotechnologies Ltd
REACH NO. : A registration number is not available for this mixture. All the substances used within the mixture are either; Pre-REACH registered, fully REACH Registered, exempt from registration or the annual tonnage does not require registration.

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

Sector of Use : SU24 Scientific research and development
Application of the substance / the mixture : Liquid Scintillation Cocktail

1.3 Details of the supplier of the safety data sheet

Company : Meridian Biotechnologies Ltd, Unit 6,
Epsom Downs Metro Centre,
Waterfield, Tadworth, Surrey KT20 5LR
United Kingdom
Telephone : +44 (0) 20 8397 8316
Fax : +44 (0) 20 8391 1373
E-mail address : info@meridian-biotech.com
Further information obtainable from : Product Safety Department

1.4 Emergency telephone numbers:

During normal opening times: +44 (0) 20 8397 8316
After hours: +44 (0) 7971000273

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquid	Category 2	H225
Acute toxicity	Category 4	H302
Skin corrosion	Category 1b	H314
Specific Target Organ Toxicity - SINGLE EXPOSURE	Category 3	H336

For the full text of the H-Statements mentioned here - see section 16

2.2 Label elements

Classification according to Regulation (EC) No 1272/2008

Hazard pictograms



GHS02



GHS05

Signal word

Danger

Hazard statements

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H336	May cause drowsiness or dizziness

Cont...

Version 6.3 Revision Date 15.2.18

According to CLP Regulation (EC) No. 1272/2008

Page 2 of 8

Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE / DOCTOR.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

2.3 Other hazards

None known

SECTION 3: Composition / Information on Ingredients
3.2 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with non-hazardous additions.

Hazardous components:

Propan-2-ol				
CAS NUMBER: 67-63-0	Flammable liquid	Category 2	H225	70-80%
EC NUMBER: 200-661-7	Eye damage / eye irritation	Category 2	H319	
REACH: 01-2119457558-25	Specific Target Organ Toxicity - SINGLE EXPOSURE	Category 3	H336	
N, N-dialkyl-N-N-dimethylammonium hydroxide				
CAS NUMBER: 94199-93-6	Acute toxicity	Category 4	H302	15-30%
EC NUMBER: 303-469-2	skin corrosion	Category 1b	H314	
REACH: N/a				

For the full text of the H-Statements mentioned here - see section 16

SECTION 4: First Aid Measures
4.1 Description of first aid measures

General information:	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled:	Move person into fresh air.
In case of contact with skin contact:	Wash off with plenty of water.
In case of eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Protect unharmed eye.
If swallowed:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call for a doctor immediately.

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: Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing agents: Carbon Dioxide, dry powder or water spray.
Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for fire-fighters

Special Protective equipment: Wear self-contained respiratory protective device.
Wear fully protective suit.

Further Information: Cool closed containers exposed to fire with water spray. Contaminated water must not be discharged into drains.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment and ensure adequate ventilation.
Keep unprotected persons away.

Special precautions: Particular danger of slipping on leaked/spilled product.

6.2 Environmental precautions

Environmental precautions: Inform respective authorities in case of seepage into water course.
Do not allow to enter surface or ground water.
Dilute with plenty of water.
Collect spillage

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Pick up mechanically
Dispose in according to local regulations (see section 13).

6.4 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.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Advice on safe handling: Wear personal protective equipment.
Avoid contact with skin and eyes and clothing.
Avoid breathing
Ensure good ventilation/exhaustion at the workplace.
Use only in area provided with appropriate exhaust ventilation.
Use explosion-proof equipment and non spark tools
Prevent formation of aerosols.

Information about fire and explosion protection:

Keep away from sources of ignition.
Take precautionary measures against static discharges
Do not smoke.

Cont...

Version 6.3 Revision Date 15.2.18

According to CLP Regulation (EC) No. 1272/2008

Page 4 of 8

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Information about storage in one common storage facility:

Store in a dry, cool and well ventilated place

Further information about storage conditions:

Keep container tightly sealed.

Protect from exposure to the light.

7.3 Specific end use(s)

Specific use (s):

Advised temperature of use: 10-25°C

SECTION 8: Exposure Controls / Personal Protection

8.1 Control parameters

Components with workplace control parameters:

Component	CAS - No	Exposure	Value
Propan-2-ol	67-63-0	STEL TWA	500 ppm 1,250 mg/m ³ 400 ppm 999 mg/m ³

8.2 Exposure controls

General protective and hygienic measures:

Handle in accordance with good industrial hygiene and safety practice.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

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

Wear suitable gloves, body and eye protection and a face shield.

Personal Protective Equipment:

Respiratory protection:

No personal respiratory protective equipment normally required.

Skin protection:

Handle with protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Splash contact

Material: Nitrile-rubber

Minimum layer thickness: 0.4 mm

Break through time: 30 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye / face protection:

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Body protection:

Protective work clothing – complete suit protecting against chemicals. The type of protective clothing must be selected according to the concentration and amount of the dangerous substance at the specified workplace.

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Form:	Colourless
Colour:	According to specification
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	>12
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	82°C
Flash point:	12°C
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	399°C
Decomposition temperature:	Not determined
Self-igniting:	Product is not self igniting
Danger of explosion:	Product does not present explosion hazard.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	35 mm Hg @ 20°C
Density at 20 °C:	0.83 gm /cm ³
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Fully miscible
Particle size	Not applicable
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined

9.2 Other information No further relevant information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity:	No data available.
10.2 Chemical stability	Stable under recommended storage conditions.
	No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions:	Reacts with strong oxidising agents and flammable substances.
10.4 Conditions to avoid	Light, ignition sources, excess heat, exposure to moist air.
10.5 Incompatible materials:	Strong oxidising agents, strong acids, strong bases, ammonia, ethylene oxide, isocyanates, acetaldehyde and chlorine.
10.6 Hazardous decomposition products:	Toxic fumes of carbon monoxide and carbon dioxide.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Component	CAS - No	LD50 / 48 hours
Propan-2-ol	67-63-0	LD50 rat >2,000 mg/kg (rat) oral LD50 rat >2,000 mg/kg (rabbit) dermal LC50 rat >20 mg/kg (rat) inhalation, vapours

Skin corrosion / irritation:	Causes serious skin damage / burns.
Serious eye damage / eye irritation:	Causes serious eye damage.
Respiratory sensitisation:	Based on available data, classification criteria not met.
Germ cell mutagenicity:	Based on available data, classification criteria not met.
Carcinogenicity:	Based on available data, classification criteria not met.
Reproductive toxicity:	Based on available data, classification criteria not met.
Specific Target Organ Toxicity – Single Exposure:	Inhalation, Oral - May cause drowsiness or dizziness
Specific Target Organ Toxicity – Repeated Exposure:	Based on available data, classification criteria not met.
Aspiration hazard:	Harmful if swallowed.
Additional information:	The toxicological properties have not been fully investigated.

SECTION 12: Ecological Information

12.1 Toxicity Aquatic toxicity:

Component	CAS - No	LC50
Propan-2-ol	67-63-0	Pimephales promelas (fathead minnow) 9,640 mg/l - 96h Daphnia magna (Water flea) - 5,102 mg/l - 24h

12.2 Persistence and degradability:	Biodegradable
12.3 Bio accumulative potential:	No further relevant information available.
12.4 Mobility in soil:	No further relevant information available.

12.5 Results of PBT and vPvB Assessment:	PBT: Not applicable. vPvB: Not applicable
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12.6 Other adverse effects

Additional ecological information:

General notes:	This product may move with surface or groundwater flows because its water solubility is: 100%. This product is likely to volatilize rapidly into the air because of its high vapour pressure. The product is poorly absorbed onto soils or sediments
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SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Product:	Must not be disposed together with household garbage.
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Uncleaned Packaging:	Disposal must be made according to official regulations.
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Version 6.3 Revision Date 15.2.18

According to CLP Regulation (EC) No. 1272/2008

Page 7 of 8

SECTION 14: Transport Information

14.1 UN-Number ADR, ADN, IMDG, IATA	UN2920
14.2 UN proper shipping name - ADR, ADN, IMDG, IATA	CORROSIVE LIQUID, FLAMMABLE, N.O.S (N, N-dialkyl-N-N-dimethylammonium hydroxide)
14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Class	8 3
14.4 Packing group ADR, IMDG, IATA	II
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user Danger code (Kemler): EMS Number:	Warning: FLAMMABLE, CORROSIVE liquid. 30 F-E,S-E
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E1
Maximum net quantity per inner packaging:	30 ml
Maximum net quantity per outer packaging:	1000 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ) Code:	E1
Maximum net quantity per inner packaging:	30 ml
Maximum net quantity per outer packaging:	1000 ml
UN "Model Regulation":	UN2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S (N, N-dialkyl-N-N-dimethylammonium hydroxide), 8, II

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 No further information available.

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

SECTION 16: Other Information

Hazard statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

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Version 6.3 Revision Date 15.2.18

According to CLP Regulation (EC) No. 1272/2008

Page 8 of 8

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P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
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P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

This 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.

Abbreviations and acronyms:

ADR: Accord européen sur le transport 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)

REACH: Registration, Evaluation, Authorisation & restriction of CHemicals