



dyn-halosperm

PRODUCT INFORMATION

DEVICE INFORMATION

Product name: dyn-halosperm
REF: HT-DHS5G2
Document code: HTDHS5G2_MSDS_EN/01
Last revision date: 02-12-2024
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COMPONENTS

MSDS kit contains the following:
- Solution 1 (DA) Denaturant Agent
- Solution 2 (LS) Lysis Solution

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SOLUTION 1 (DA) DENATURANT AGENT

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product form : Mixture
Trade name : Solution 1 (DA) Denaturant Agent

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

1.2.1 RELEVANT IDENTIFIED USES

Main use category : Professional use
Use of the substance/mixture : dyn-halosperm component

1.2.2 USES ADVISED AGAINST

No additional information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Halotech DNA SL
C/FARADAY 7
1º PLANTA CAMPUS DE CANTOBLANCO
28049 MADRID, SPAIN
T +34 912 79 69 50
altea.gosalbez@halotechdna.com

1.4 EMERGENCY TELEPHONE NUMBER

Emergency number : +34 912 79 69 50
From monday to friday (9:00-16:00h)

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

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

Met. Corr. 1 H290
Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be corrosive to metals-

2.2 LABEL ELEMENTS

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Warning

Contains :

hydrochloric acid

Hazard statements (CLP) :

H290 - May be corrosive to metals.

Precautionary statements (CLP) :

P234 - Keep only in original packaging.
P390 - Absorb spillage to prevent material damage.
P406 - Store in a corrosive resistant container with a resistant inner liner.

2.3 OTHER HAZARDS

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII
The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Not applicable.

3.2 MIXTURES

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrochloric acid substance with a Community workplace exposure limit	EC-No.: 231-595-7 EC Index-No.: 017-002-01-X REACH-no: 01-2119484862-27	0.3 – 0.35	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335



Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
hydrochloric acid	EC-No.: 231-595-7 EC Index-No.: 017-002-01-X REACH-no: 01-2119484862-27	(10 ≤ C < 100) STOT SE 3, H335 (10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C < 25) Skin Irrit. 2, H315 (25 ≤ C < 100) Skin Corr. 1B, H314

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

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
 First-aid measures after skin contact : Wash skin with plenty of water.
 First-aid measures after eye contact : Rinse eyes with water as a precaution.
 First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
 Unsuitable extinguishing media : Do not use a heavy water stream.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous decomposition products in: Carbon oxides (CO, CO₂).
 case of fire

5.3 ADVICE FOR FIREFIGHTERS

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.
 Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

6.1.1 FOR NON-EMERGENCY PERSONNAL

- Emergency procedures : Ventilate spillage area.



6.1.2 FOR EMERGENCY RESPONDERS

Protective equipment : Do not attempt to take action without suitable protective equipment.
For further information refer to section 8: "Exposure controls/personal protection".

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4 REFERENCE TO OTHER SECTIONS

For further information refer to sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store in a well-ventilated place. Keep cool.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Direct sunlight. Sources of ignition. Metals.
Storage temperature : 2 – 8 °C

7.3 SPECIFIC END USE(S)

See section 1.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

8.1.1 NATIONAL OCCUPATIONAL EXPOSURE AND BIOLOGICAL LIMIT VALUES

hydrochloric acid	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Hydrogen chloride
IOEL TWA	8 mg/m ³
	IOEL TWA 5 ppm

hydrochloric acid	
IOEL STEL	15 mg/m ³
	IOEL STEL 10 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

8.1.2 RECOMMENDED MONITORING PROCEDURES

No additional information available

8.1.3 AIR CONTAMINANTS FORMED

No additional information available

8.1.4 DNEL AND PNEC

hydrochloric acid	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	15 mg/m ³
Long-term - local effects, inhalation	8 mg/m ³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	15 mg/m ³
Long-term - local effects, inhalation	8 mg/m ³

8.1.5 CONTROL BANDING

No additional information available

8.2 EXPOSURE CONTROLS

8.2.1 APPROPRIATE ENGINEERING CONTROLS

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2 PERSONAL PROTECTION EQUIPMENT

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1 EYE AND FACE PROTECTION

Eye protection:

Safety glasses



8.2.2.2 SKIN PROTECTION

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3 RESPIRATORY PROTECTION

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4 THERMAL HAZARDS

No additional information available

8.2.3 ENVIRONMENTAL EXPOSURE CONTROLS

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Colour	: Transparent.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 1.3
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow):	: Not available
Vapour Pressure 20°C	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Vapour density	: Not available
Particle characteristics	: Not applicable

9.2 OTHER INFORMATION

9.2.1 INFORMATION WITH REGARD TO PHYSICAL HAZARD CLASSES

No additional information available



9.2.2 OTHER SAFETY CHARACTERISTICS

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

The product is non-reactive under normal conditions of use, storage and transport.

10.2 CHEMICAL STABILITY

Stable under normal conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reactions known under normal conditions of use.

10.4 CONDITIONS TO AVOID

None under recommended storage and handling conditions (see section 7).

10.5 INCOMPATIBLE MATERIALS

See section 7.2. metals.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met.)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met.)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met.)

hydrochloric acid	
LD50 oral rat	> 5010 mg/kg bodyweight
LD50 dermal rabbit	> 5010 mg/kg

Skin corrosion/irritation	: Not classified pH: 1.3
Serious eye damage/irritation	: Not classified pH: 1.3



- Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)
- Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)
- Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)
- Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)
- STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

hydrochloric acid	
STOT-single exposure	May cause respiratory irritation.

- STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met.)
- Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

11.2 INFORMATION ON OTHER HAZARDS

11.2.1 ENDOCRINE DISRUPTING PROPERTIES

Adverse health effects caused by endocrine disrupting properties: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2 OTHER INFORMATION

No additional information available

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

- Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
- Hazardous to the aquatic environment, short-term (acute): Not classified (Based on available data, the classification criteria are not met.)
- Hazardous to the aquatic environment, long-term (chronic): Not classified (Based on available data, the classification criteria are not met.)

12.2 PERSISTENCE AND DEGRADABILITY



Solution 1 (DA) Denaturant Agent	
Persistence and degradability	Rapidly degradable

hydrochloric acid	
Persistence and degradability	Rapidly degradable

12.3 BIOACCUMULATIVE POTENTIAL

No additional information available

12.4 MOBILITY IN SOIL

No additional information available

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

Solution 1 (DA) Denaturant Agent	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6 ENDOCRINE DISRUPTING PROPERTIES

Adverse effects on the environment: caused by endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7 OTHER ADVERSE EFFECTS

No additional information available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / IMDG / IATA / ADN / RID /

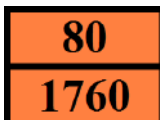
ADR	IMDG	IATA	ADN	RID
14.1 UN NUMBER OR ID NUMBER				
UN 1760	UN 1760	UN 1760	UN 1760	UN 1760
14.2 UN PROPER SHIPPING NAME				
CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.	Corrosive liquid, n.o.s.	CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.

Transport document description				
UN 1760 CORROSIVE LIQUID, N.O.S. (hydrochloric acid), 8, III, (E)	UN 1760 CORROSIVE LIQUID, N.O.S. (hydrochloric acid), 8, III	UN 1760 Corrosive liquid, n.o.s. (hydrochloric acid), 8, III	UN 1760 CORROSIVE LIQUID, N.O.S. (hydrochloric acid), 8, III	UN 1760 CORROSIVE LIQUID, N.O.S. (hydrochloric acid), 8, III
14.3 TRANSPORT HAZARD CLASS(ES)				
8	8	8	8	8
14.4 PACKING GROUP				
III	III	III	III	III
14.5 ENVIRONMENTAL HAZARDS				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6 SPECIAL PRECAUTIONS FOR USER

Overland transport

Classification code (ADR) : C9
 Special provisions (ADR) : 274
 Limited quantities (ADR) : 5I
 Excepted quantities (ADR) : E1
 Packing instructions (ADR) : P001, IBC03, LP01, R001
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container:
 instructions (ADR) : T7
 Portable tank and bulk container:
 special provisions (ADR) : TP1, TP28
 Tank code (ADR) : L4BN
 Vehicle for tank carriage : AT
 Transport category (ADR) : 3
 Special provisions for carriage -: V12
 Packages (ADR)
 Hazard identification number (Kemler:
 No.) : 80
 Orange plates :



Tunnel restriction code (ADR) : E

Transport by sea

Special provisions (IMDG) : 223, 274
 Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E1
 Packing instructions (IMDG) : P001, LP01
 IBC packing instructions (IMDG) : IBC03
 Tank instructions (IMDG) : T7
 Tank special provisions (IMDG) : TP1, TP28
 EmS-No. (Fire) : F-A
 EmS-No. (Spillage) : S-B
 Stowage category (IMDG) : A
 Stowage and handling (IMDG) : SW2
 Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.



Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y841
PCA limited quantity max net quantity: (IATA)	: 1L
PCA packing instructions (IATA)	: 852
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 856
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

Inland waterway transport

Classification code (ADN)	: C9
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: C9
Special provisions (RID)	: 274
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container: instructions (RID)	: T7
Portable tank and bulk container: special provisions (RID)	: TP1, TP28
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 80

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

15.1.1 EU-REGULATIONS

REACH Annex XVII (Restriction List)



EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	Solution 1 (DA) Denaturant Agent; hydrochloric acid	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2 NATIONAL REGULATIONS

No additional information available.

15.2 CHEMICAL SAFETY ASSESSMENT

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out:
hydrochloric acid

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. SDS EU format according to COMMISSION REGULATION (EU) 2020/878.

Other information : Refer to the safety data sheet before handling or disposing.

Full text of H- and EUH-statements:	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.



Full text of H- and EUH-statements:	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Met. Corr. 1	H290	Calculation method
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Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



SOLUTION 2 (LS) LYSIS SOLUTION

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product form : Mixture
Trade name : Solution 2 (LS) Lysis Solution

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

1.2.1 RELEVANT IDENTIFIED USES

Main use category : Professional use
Use of the substance/mixture : dyn-halosperm component

1.2.2 USES ADVISED AGAINST

No additional information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Halotech DNA SL
C/FARADAY 7
1º PLANTA CAMPUS DE CANTOBLANCO
28049 MADRID, SPAIN
T +34 912 79 69 50
altea.gosalbez@halotechdna.com

1.4 EMERGENCY TELEPHONE NUMBER

Emergency number : +34 912 79 69 50
From monday to friday (9:00-16:00h)

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

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

Eye Dam. 1 H318
Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes serious eye damage.

2.2 LABEL ELEMENTS

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

Hazard pictograms (CLP) :



Signal word (CLP) : Danger
 Contains : (R*,R*)-1,4-dimercaptobutane-2,3-diol
 Hazard statements (CLP) : H318 - Causes serious eye damage.
 Precautionary statements (CLP) : P280 - Wear protective clothing, eye protection, face protection.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 - Immediately call a doctor.

2.3 OTHER HAZARDS

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
 This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
 Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Not applicable

3.2 MIXTURES

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(R*,R*)-1,4-dimercaptobutane-2,3-diol	CAS-No.: 3483-12-3 EC-No.: 222-468-7	3 – 3.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318
2-(((1-((2-ethylhexyl)poly-oxy)polypropan-2-yl)oxy)ethanol	CAS-No.: 64366-70-7 EC-No.: 613-582-1	1 – 1.5	Eye Irrit. 2, H319

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

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

First-aid measures general : If you feel unwell, seek medical advice.
 First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
 First-aid measures after skin contact : Wash skin with plenty of water.
 First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.



First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Symptoms/effects after eye contact : Serious damage to eyes.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous decomposition products in case of fire: Toxic fumes may be released. Carbon oxides (CO, CO₂).

5.3 ADVICE FOR FIREFIGHTERS

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

6.1.1 FOR NON-EMERGENCY PERSONNAL

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2 FOR EMERGENCY RESPONDERS

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4 REFERENCE TO OTHER SECTIONS

For further information refer to sections 8 and 13.



SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Storage conditions : Store in a well-ventilated place. Keep cool.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.

7.3 SPECIFIC END USE(S)

See section 1.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

8.1.1 NATIONAL OCCUPATIONAL EXPOSURE AND BIOLOGICAL LIMIT VALUES

No additional information available

8.1.2 RECOMMENDED MONITORING PROCEDURES

No additional information available

8.1.3 AIR CONTAMINANTS FORMED

No additional information available

8.1.4 DNEL AND PNEC

No additional information available

8.1.5 CONTROL BANDING

No additional information available

8.2 EXPOSURE CONTROLS

8.2.1 APPROPRIATE ENGINEERING CONTROLS

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2 PERSONAL PROTECTION EQUIPMENT

Personal protective equipment:
Avoid all unnecessary exposure.
Personal protective equipment symbol(s):



8.2.2.1 EYE AND FACE PROTECTION

Eye protection:
Safety glasses

8.2.2.2 SKIN PROTECTION

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

8.2.2.3 RESPIRATORY PROTECTION

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4 THERMAL HAZARDS

No additional information available

8.2.3 ENVIRONMENTAL EXPOSURE CONTROLS

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Colour	: Colourless.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7
Viscosity, kinematic	: Not available
Solubility	: Not available



Partition coefficient n-octanol/water: Not available
(Log Kow)
Vapour Pressure 20°C : Not available
Vapour pressure at 50 °C : Not available
Density : Not available
Relative density : Not available
Vapour density : Not available
Particle characteristics : Not applicable

9.2 OTHER INFORMATION

9.2.1 INFORMATION WITH REGARD TO PHYSICAL HAZARD CLASSES

No additional information available

9.2.2 OTHER SAFETY CHARACTERISTICS

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

The product is non-reactive under normal conditions of use, storage and transport.

10.2 CHEMICAL STABILITY

Stable under normal conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reactions known under normal conditions of use.

10.4 CONDITIONS TO AVOID

None under recommended storage and handling conditions (see section 7).

10.5 INCOMPATIBLE MATERIALS

See section 7.2.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met.)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met.)



Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met.)

(R*,R*)-1,4-dimercaptobutane-2,3-diol (3483-12-3)	
LD50 oral rat	300 – 2000 mg/kg OECD 423

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: 7

Serious eye damage/irritation : Causes serious eye damage.
pH: 7

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met.)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

11.2 INFORMATION ON OTHER HAZARDS

11.2.1 ENDOCRINE DISRUPTING PROPERTIES

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2 OTHER INFORMATION

No additional information available

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.



Hazardous to the aquatic environment, short-term (acute): Not classified (Based on available data, the classification criteria are not met.)
Hazardous to the aquatic environment, long-term (chronic): Not classified (Based on available data, the classification criteria are not met.)

(R*,R*)-1,4-dimercaptobutane-2,3-diol (3483-12-3)	
EC50 - Crustacea [1]	34.8 mg/l 48h; Daphnia magna, OECD 202
ErC50 algae	24.3 mg/l 72h; Pseudokirchneriella subcapitata, OECD 201
NOEC chronic crustacea	25 mg/l 48h; Daphnia magna; OECD 202

12.2 PERSISTENCE AND DEGRADABILITY

Solution 2 (LS) Lysis Solution	
Persistence and degradability	No information available.

(R*,R*)-1,4-dimercaptobutane-2,3-diol (3483-12-3)	
Persistence and degradability	No information available.

2-((1-((2-ethylhexyl)poly-oxy)poly-propan-2-yl)oxy)ethanol (64366-70-7)	
Persistence and degradability	No information available.

12.3 BIOACCUMULATIVE POTENTIAL

No additional information available

12.4 MOBILITY IN SOIL

No additional information available

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

Solution 2 (LS) Lysis Solution	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6 ENDOCRINE DISRUPTING PROPERTIES

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7 OTHER ADVERSE EFFECTS

No additional information available



SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / IMDG / IATA / ADN / RID /

ADR	IMDG	IATA	ADN	RID
14.1 UN NUMBER OR ID NUMBER				
Not regulated for transport				
14.2 UN PROPER SHIPPING NAME				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3 TRANSPORT HAZARD CLASS(ES)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4 PACKING GROUP				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5 ENVIRONMENTAL HAZARDS				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6 SPECIAL PRECAUTIONS FOR USER

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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

15.1.1 EU-REGULATIONS

REACH Annex XVII (Restriction List)



EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	Solution 2 (LS) Lysis Solution ; 2-((1-(2-ethylhexyl)polyoxy)poly-propan-2-yl)oxy)ethanol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2 NATIONAL REGULATIONS

No additional information available

15.2 CHEMICAL SAFETY ASSESSMENT

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BLV	Biological limit value
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. SDS EU format according to COMMISSION REGULATION (EU) 2020/878.

Other information : Refer to the safety data sheet before handling or disposing.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
Skin Irrit. 2	Skin corrosion/irritation, Category 2



Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Eye Dam. 1	H318	Calculation method
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Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.