

SAFETY DATA SHEET

According to Regulation (EU) No. 1907/2006 (REACH) and Regulation (EU) No. 2020/878

DNA IPC Target / RNA IPC Target

Version
1.4en

Revision Date:
24 November 2021

Date of first Issue: 09.02.2019
Date of last Issue: 25.10.2020

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

1.1 Product Identifier

Positive Control in guanidine thiocyanate, alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly (oxy1,2-ethanediyl) and 1,4-Dithiothreitol (DTT)

Other means of identification:

DNA IPC Target, RNA IPC Target

Components of the products:

ViroReal®, BactoReal®, FetoGnost®, SeptiReal®, PanReal, MycoReal or ParoReal

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

Relevant identified use:

Product for analytical purposes

Uses advised against:

none known

1.3 Details of the supplier of the safety data sheet

Manufacturer: Ingenetix GmbH

Address: Arsenalstraße 11, 1030 Vienna, Austria

Phone: +43(0)1 36 1980 198

Fax: +43(0)1 36 1980 199

E-mail: office@ingenetix.com

Web Site: www.ingenetix.com

1.3.1 Responsible Person: Dr. Irina Korschineck

1.4 Emergency telephone number

+43 1 406 43 43 (Gesundheit Österreich GmbH, 24 h)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification regulation (EC) 1272/2008 (CLP):

Acute toxicity (Oral)

Category 4

H302 Harmful if swallowed

Acute toxicity (Inhalation)

Category 4

H332 Harmful if inhaled

Acute toxicity (Dermal)

Category 4

H312 Harmful in contact with skin

Skin corrosion

Category 1B

H314 Causes severe skin burns and eye damage

Serious eye damage

Category 1

H318 Causes serious eye damage

Hazardous to the aquatic environment

Category 3

H412 Harmful to aquatic life with long lasting effect

2.2 Label elements

Labelling according to regulation (EC) 1272/2008 (CLP):

Hazard pictograms:



Signal word: Danger

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Supplemental hazard

Statements: EUH032 Contact with acids liberates very toxic gas

Precautionary statements:

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/ spray.

P273 Avoid release to the environment.

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

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor/ ...

P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor/ ...

Hazardous component(s)	CAS number
Guanidinium thiocyanate	593-84-0
alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)	9002-93-1
1,4-Dithiothreitol (DTT)	3483-12-3

2.3. Other hazards

This substance / mixture does not contain any components in concentrations of 0.1 % or higher that are either classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

This product is a mixture.

3.2 Mixtures

Chemical Name	CAS/ EC/ INDEX number	Classification (Regulation (EC) No. 1272/2008 (CLP))	Concentration (% w/w)
Guanidinium thiocyanate	593-84-0 209-812-1 615-004-00-3	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 50,0 - < 70,0
alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)	9002-93-1	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Chronic 2; H411	>= 20,0 - < 25,0
1,4-Dithiothreitol (DTT)	3483-12-3 222-468-7	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1,0 - < 10,0

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SECTION 4: FIRST-AID MEASURES

4.1 Description of first aid measures

General notes:

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

Following inhalation:

Move to fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

Following skin contact:

Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes.

Following eye contact:

Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital.
Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Following ingestion:

Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed, in contact with skin or if inhaled. Causes serious eye damage. Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed:

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

5.1.1. Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.1.2. Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

Special hazards during firefighting:

Do not allow run-off from firefighting to enter drains or water courses.

Hazardous combustion products:

In case of fire the following hazardous decomposition products may be produced: carbon oxides, nitrogen oxides (NO_x), sulphur oxides, hydrogen cyanide (hydrocyanic acid)

5.3 Advice for firefighters

Special protective equipment for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information:

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Bring people to safety.

6.1.2 For emergency responders

Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Treat the collected material according to section disposal.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling:

Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

To prevent leaks or spillages from spreading, provide a suitable liquid retention system.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

Hygiene measures:

When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage

Store in original containers in compliance with the storage conditions stated on the label. No decomposition if stored and used as intended.

7.3 Specific end use(s)

Defined use(s): laboratory chemicals

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Chemical Name	CAS-No.	Form of exposure	Control parameters / Permissible concentration	Basis
Guanidinium thiocyanate	593-84-0	IOEL	100 microgram per cubic meter	OEL = 100 µg/m ³

8.2 Exposure controls

8.2.1 Appropriate engineering measures

No data available

8.2.2 Individual protection measures, such as personal protective equipment

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

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Hand protection:

Always use protective gloves. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. The suitability for a specific workplace should also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection:

Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.

8.2.3. Environmental exposure controls

Do not empty into drains or bodies of water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	liquid
Colour:	light yellow
Odour, odour threshold:	characteristic
Melting point/ freezing point:	no data available
Boiling point/boiling range:	no data available
Flammability:	the product is not flammable , does not sustain combustion
Lower and upper explosion limit:	no data available
Flash point:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	hazardous decomposition products formed under fire conditions
pH:	ca. 6.0
Kinematic viscosity:	no data available
Solubility in water:	no data available
Solubility in other solvents:	no data available
Partition coefficient:	n-octanol/water (log value): no data available
Vapour pressure:	no data available
Density and/or relative density:	no data available
Relative vapour density:	no data available
Particle characteristics:	no data available
Oxidizing properties:	the substance or mixture is not classified as oxidizing

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Hazard classes according to GHS (physical hazards): not relevant

9.2.2. Other safety characteristics

Flammability (liquids):	does not sustain combustion
Self-ignition:	no data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions known when used as intended.

10.2. Chemical stability

Stable under recommended conditions

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- 10.3. Possibility of hazardous reactions**
Toxic gases can be liberated when exposed to sodium hypochlorite, acids, strong oxidizing agents.
No decomposition if stored and used as intended.
- 10.4. Conditions to avoid**
No data available.
- 10.5. Incompatible materials**
Strong acids, strong oxidizing agents, sodium hypochlorite
- 10.6. Hazardous decomposition products**
Thermal decomposition can lead to release of the following decomposition products: carbon oxides, nitrogen oxides (NO_x), sulphur oxides, hydrogen cyanide (hydrocyanic acid)

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- 11.1.1. Summaries of the information derived from the test conducted**
Harmful if swallowed, in contact with skin or if inhaled.
- 11.1.2. Relevant toxicological properties**
Acute toxicity estimate (ATE):
Oral 593 mg/kg
Dermal 1,100 mg/kg
Inhalation: dust/vapour 1.5 mg/L/4 h
- 11.1.3. Information on likely routes of exposure**
Ingestion, inhalation, skin and eye contact
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics**
No data available.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure**
No data available.
- 11.1.6. Interactive effects**
No data available.
- 11.1.7. Absence of specific data**
No data available.
- 11.2. Information on other hazards**
No additional data available.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1 Toxicity**
Ecotoxicology assessment
Toxicity data in soil: Not expected to adsorb in soil.
Other organisms relevant to the environment: No data available
- Components:**
- Guanidinium thiocyanate**
Toxicity to fish:
- | | |
|-------------------------------------|-----------|
| LC50 (Poecilia reticulata (guppy)): | 89.1 mg/L |
| Exposure time: | 96 h |
| NOEC (Poecilia reticulata (guppy)): | 25 mg/L |
| Exposure time: | 96 h |

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Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia (water flea)):	42.4 mg/L
Exposure time:	48 h
NOEC (Daphnia magna (water flea)):	6.25 mg/L
Exposure time:	48 h

Ecotoxicology Assessment

Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

Toxicity Data on Soil: Not expected to adsorb on soil.

Other organisms relevant to the environment: No data available

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)

Toxicity to fish:	LC50 (Pimephales promelas (fathead minnow)):	4 - 8.9 mg/L
	Exposure time:	96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)):	18 - 26 mg/L
Exposure time:	48 h

Ecotoxicology Assessment

Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

Toxicity Data on Soil: Not expected to adsorb on soil.

Other organisms relevant to the environment: No data available

1,4-Dithiothreitol (DTT)

Ecotoxicology Assessment

Acute aquatic toxicity: This product has no known ecotoxicological effects.

Chronic aquatic toxicity: This product has no known ecotoxicological effects.

Toxicity Data on Soil: Not expected to adsorb on soil.

Other organisms relevant to the environment: No data available

12.2 Persistence and degradability

Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)

Biodegradability:

Biodegradation: > 60 %

Exposure time: 28 d

Method: OECD Test Guideline 301B

Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

12.3. Bioaccumulative potential

Components

Guanidinium thiocyanate

Partition coefficient: n-octanol/water: log Pow: -1.38

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)

Bioaccumulation:

Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water: Remarks: No data available

1,4-Dithiothreitol (DTT)

Partition coefficient: n-octanol/water: Remarks: No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance/mixture does not contain components in concentrations of 0.1 % or higher, which either are classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

12.6. Endocrine disrupting properties

Not listed.

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12.7. Other adverse effects

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Information regarding the disposal of the product

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Can be disposed as waste water, when in compliance with local regulations.

13.1.2. Information regarding the disposal of the packaging

Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified

This is hazardous waste; only approved packaging (e.g. according to ADR) must be used. Completely empty packaging can be recycled. Contaminated packaging must be treated like the substance.

13.1.4. Sewage disposal

Do not empty into drains. Do not release into the environment. Get special instructions / read the safety data sheet.

13.1.5. Special precautions for any recommended waste treatment

Please consider the relevant national or regional regulations. Waste must be separated in a way that it can be handled separately by the communal or national waste facilities.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number Not regulated as a dangerous good

14.2. UN proper shipping name Not regulated as a dangerous good

14.3. Transport hazard class(es) Not regulated as a dangerous good

14.4. Packing group Not regulated as a dangerous good

14.5. Environmental hazards Not regulated as a dangerous good

14.6. Special precautions for users

No hazardous good according to ADR/RID, AND, IMDG-Code, IATA-DGR

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

REACH: List of substances subject to authorisation (Annex XIV):

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)

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Regulation (EU) No. 1005/2009 on substances that deplete the ozone layer: not applicable
Regulation (EU) No. 850/2004 on persistent organic pollutants: not applicable
Regulation (EU) Nr. 649/2012 concerning the export and import of hazardous chemicals: not applicable

REACH: Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII): The restrictions must be considered for the following entries: number in list 3

Seveso III:

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances: not applicable

Volatile organic compounds:

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control): not applicable

Other regulations:

Employment restrictions according to directive 94/33/EG on the protection of young people at work or exacerbating national regulations must be considered, if applicable.

The components of this product are reported in the following inventories:

DSL:	All components of this product are on the Canadian DSL
AICS:	On the inventory, or in compliance with the inventory
NZIoC:	On the inventory, or in compliance with the inventory
ENCS:	Not in compliance with the inventory
ISHL:	Not in compliance with the inventory
KECI:	Not in compliance with the inventory
PICCS:	On the inventory, or in compliance with the inventory
IECSC:	On the inventory, or in compliance with the inventory
TCSI:	On the inventory, or in compliance with the inventory
TSCA:	All substances listed as active on the TSCA inventory

15.2. Chemical safety assessment

A chemical safety assessment is not required for this substance, if it is used as specified.

SECTION 16: OTHER INFORMATION

Classification of the mixture:

Acute Tox. 4	H302
Acute Tox. 4	H332
Acute Tox. 4	H312
Skin Corr. 1B	H314
Eye Dam. 1	H318
Aquatic Chronic 3	H412

Classification method:

calculation method
calculation method
calculation method
calculation method
calculation method
calculation method

Recommended restrictions of application

The application of this product is recommended for trained professionals only.

Further information

The information, data and recommendations contained herein are based upon information believed by Ingenetix GmbH after reasonable investigation and research, to be accurate. All materials and mixtures may present unknown hazards and should be used with caution. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

Changes in the Safety Data Sheet:

The following sections were changed compared to the previous versions:

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- 1.1en: address, telephone and fax number ingenetix GmbH
- 1.2en: product identifier expanded
- 1.3en: general revision
- 1.4en: adaption to regulation (EU) No. 2020/878