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

1.1 Product identifier

Substance name:
Titin Antibody ELISA

Article number.:
EA601/48 R E F TIT00

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

Relevant identified uses:
Reagent / Immunoassay
For professional use only.

Uses advised against:
/

1.3 Details of the supplier of the safety data sheet:

Supplier
DLD Diagnostika GmbH
Gesellschaft für Diagnostika und medizinische Geräte mbH

Address
Adlerhorst 15
DE – 22459 Hamburg

Information contact
E-Mail: contact@dld-diagnostika.de
Internet: www.dld-diagnostika.de

Telephone / Fax / E-Mail
Tel +49 (0) 40-555 87 10 / Fax +49 (0) 40-555 87 111 / contact@dld-diagnostika.de

1.4 Emergency Telephone Number

Tel +49 (0) 4191-722 68 65

2. Hazards identification

Classification of the substance or mixture

Some components of this kit are containing hazardous reagents. These components are marked with the adequate hazard label:
Calibrator and Controls
Enzyme Conjugate
Corresponding safety data sheets: see following safety data sheets (below)

Following components (see 3. Composition/information on ingredients) contain no hazardous reagents in concentrations to be declared.

3. Composition/information on ingredients

MT-Strips	Polystyrol microtiterplate coated with recombinant peptide
Sample Diluent	Neutral buffer solution, stabilized
Wash Buffer	Buffer solution with detergent, neutral, concentrate
Substrate	Highly diluted TMB-solution, acidic, stabilized
Stop Solution	0.3 mol/l sulphuric acid
Foil	/

Components above contain no hazardous reagents in concentrations to be declared.

4. First aid measures

General informations:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. If unconsciousness, bedding and transport in recovery position.

After skin contact
Generally the product does not irritate the skin.

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

After swallowing
If symptoms persist consult doctor.

5. Firefighting measures

Extinguishing media

Suitable:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Environmental precautions

Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up

Absorb with liquid-binding material.
Dispose contaminated material as waste according to item 13.
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

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Always close receptacle after use.
Prevent formation of aerosols.

Information about fire - and explosion protection:

Keep respiratory protective device available.

Aerosol and dust generation preventions

Open and handle receptacle with care.
Always close receptacle after use.

Environmental precautions

Do not allow to enter sewers/ surface or ground water.

General hygiene measures

- Eating, drinking or smoking is prohibited in working areas.
- Wash hands after handling.
- Remove contaminated clothing and protective equipment before entering any food handling areas.

Conditions for safe storage, including any incompatibilities

No special requirements

8. Exposure controls/personal protection

Occupational exposure limit sulphuric acid:
Inhalable fraction: 0,1 mg/m^3

Personal protective equipment

Eye / Face protection

Tightly sealed goggles.

Skin protection

Protective Gloves

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. The quality of the protective gloves must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
The exact break through time: Call the manufacturer of the protective gloves and this has to be observed.

Other skin protection measures

Lab coat.

Respiratory protection

No special requirements.

Thermal hazards

No special requirements.

Environmental exposure controls

See sections 6 und 7.

9. Physical and chemical properties

MT-Strips	Polystyrol microtiterplate in foil packet
Sample Diluent	Colored, neutral liquid
Wash Buffer	Colorless, neutral liquid
Substrate	Slightly bluish, acidic liquid
Stop Solution	Colorless, acidic liquid, pH < 1
Foil	Adhesive foil

10. Stability and reactivity

Stability of components: See Label.
Used according to intended use and stored under appropriate conditions no dangerous reactions known.

Conditions to avoid: /

11. Toxicological information

Used according to intended use no toxicological reactions known.

12. Ecological information

Used according to intended use no ecological reactions known.

13. Disposal considerations

Dispose of waste according to applicable local, state, and federal regulations.

14. Transport information

This product is not subject to official transport regulations

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

National Regulations

Water hazard class
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Further relevant regulations

/

Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

16. Other information

Indication of changes

Entire Revision

Key literature references and sources for data

Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Further Informationen

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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

1.1 Product identifier

Substance name: Calibrator and Controls

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

Relevant identified uses:
Reagent / Immunoassay
For professional use only.

Uses advised against:
/

1.3 Details of the supplier of the safety data sheet:

Supplier
DLD Diagnostika GmbH
Gesellschaft für Diagnostika und medizinische Geräte mbH

Address
Adlerhorst 15
DE – 22459 Hamburg

Information contact
E-Mail: contact@dld-diagnostika.de
Internet: www.dld-diagnostika.de

Telephone / Fax / E-Mail
Tel +49 (0) 40-555 87 10 / Fax +49 (0) 40-555 87 111 / contact@dld-diagnostika.de

1.4 Emergency Telephone Number

Tel +49 (0) 4191-722 68 65

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:
Skin sensitization; Category 1 – (H317)

2.2 Label elements

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

Hazard pictograms / Signal words:

Warning

Hazard-determining components of labelling
Contains 3(2H)-Isothiazolone, 2-methyl-

Hazard statements
H317 - May cause an allergic skin reaction
EUH071 - Corrosive to the respiratory tract

Precautionary Statements - EU (§28, 1272/2008)
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/ container to an approved waste disposal plant

2.3 Other hazards

No information available.

3. Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Sucrose 57-50-1	1 - <10	No data available	200-334-9	No data available	-	-	-
Sodium chloride 7647-14-5	0.1 - <1	No data available	231-598-3	No data available	-	-	-
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	<0.1	No data available	220-239-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH071)	Skin Sens. 1A :: C>=0.0015%	10	1

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

Acute Toxicity Estimate
No information available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

4. First aid measures

4.1. Description of first aid measures	
General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Rinse mouth.
4.2. Most important symptoms and effects, both acute and delayed	
Symptoms	Itching. Rashes. Hives.
4.3. Indication of any immediate medical attention and special treatment needed	
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media	
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
5.2. Special hazards arising from the substance or mixture	
Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by skin contact.
5.3. Advice for firefighters	
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
For emergency responders	Use personal protection recommended in Section 8.
6.2. Environmental precautions	
Environmental precautions	See Section 12 for additional Ecological Information.
6.3. Methods and material for containment and cleaning up	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
6.4. Reference to other sections	
Reference to other sections	See section 8 for more information. See section 13 for more information.

7. Handling and storage

7.1. Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
7.2. Conditions for safe storage, including any incompatibilities	
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
7.3. Specific end use(s)	
Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.

8. Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Sucrose 57-50-1	-	-	TWA: 10 mg/m3	TWA: 10.0 mg/m3	TWA: 10 mg/m3 STEL: 20 mg/m3
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	-	TWA: 0.05 mg/m3	-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Sucrose 57-50-1	-	-	-	TWA: 10 mg/m3	-
Chemical name	France	Germany	Germany MAK	Greece	Hungary
Sucrose 57-50-1	TWA: 10 mg/m3	-	-	-	-
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	-	-	TWA: 0.2 mg/m3 Peak: 0.4 mg/m3	-	-
Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
Sucrose 57-50-1	TWA: 10 mg/m3 STEL: 20 mg/m3	-	TWA: 10 mg/m3	TWA: 5 mg/m3	TWA: 10 mg/m3
Sodium chloride 7647-14-5	-	-	-	TWA: 5 mg/m3	TWA: 5 mg/m3
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Sucrose 57-50-1	TWA: 10 mg/m3	-	-	-	TWA: 10 mg/m3

Chemical name	Sweden	Switzerland	United Kingdom
Sucrose 57-50-1	-	-	TWA: 10 mg/m3 STEL: 20 mg/m3
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	-	TWA: 0.2 mg/m3 STEL: 0.4 mg/m3	-

Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
Derived No Effect Level (DNEL)	No information available.
Predicted No Effect Concentration (PNEC)	No information available.
8.2. Exposure controls	
Personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties	
Physical state	Liquid
Appearance	Clear
Color	Pale Yellow
Odor	No information available.
Odor threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	Neutral
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	Completely soluble	None known
Solubility(ies)	No data available	None known

Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information
9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

10. Stability and reactivity

10.1. Reactivity	
Reactivity	No information available.
10.2. Chemical stability	
Stability	Stable under normal conditions.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
10.3. Possibility of hazardous reactions	
Possibility of hazardous reactions	None under normal processing.
10.4. Conditions to avoid	
Conditions to avoid	None known based on information supplied.
10.5. Incompatible materials	
Incompatible materials	None known based on information supplied.
10.6. Hazardous decomposition products	
Hazardous decomposition products	None known based on information supplied.

11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008			
Information on likely routes of exposure			
Product Information			
Inhalation	Specific test data for the substance or mixture is not available.		
Eye contact	Specific test data for the substance or mixture is not available.		
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).		
Ingestion	Specific test data for the substance or mixture is not available.		
Symptoms related to the physical, chemical and toxicological characteristics			
Symptoms	Itching. Rashes. Hives.		
Acute toxicity			
Numerical measures of toxicity			
No information available			
Component Information			
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sucrose	= 29700 mg/kg (Rat)	-	-
Sodium chloride	= 3 g/kg (Rat)	> 10000 mg/kg (Rabbit)	> 42 mg/L (Rat) 1 h
3(2H)-Isothiazolone, 2-methyl-	232 - 249 mg/kg (Rat) = 120 mg/kg (Rat)	= 200 mg/kg (Rabbit)	= 0.11 mg/L (Rat) 4 h
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Skin corrosion/irritation	No information available.		
Serious eye damage/eye irritation	No information available.		
Respiratory or skin sensitization	May cause sensitization by skin contact.		
Germ cell mutagenicity	No information available.		
Carcinogenicity	No information available.		
Reproductive toxicity	No information available.		
STOT - single exposure	No information available.		
STOT - repeated exposure	No information available.		
Aspiration hazard	No information available.		
11.2. Information on other hazards			
11.2.1. Endocrine disrupting properties			
Endocrine disrupting properties	No information available.		
11.2.2. Other information			
Other adverse effects	No information available.		

12. Ecological information

12.1. Toxicity				
Ecotoxicity				
Unknown aquatic toxicity		Contains 0 % of components with unknown hazards to the aquatic environment.		
Chemical name	Algae /aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium chloride	-	LC50: 5560 - 6080mg/L (96h, Lepomis macrochirus) LC50: =12946mg/L (96h, Lepomis macrochirus) LC50: 6020 - 7070mg/L (96h, Pimephales promelas) LC50: =7050mg/L (96h, Pimephales promelas) LC50: 6420 - 6700mg/L (96h, Pimephales promelas) LC50: 4747 - 7824mg/L (96h, Oncorhynchus mykiss)	-	EC50: =1000mg/L (48h, Daphnia magna) EC50: 340.7 - 469.2mg/L (48h, Daphnia magna)

12.2. Persistence and degradability	
Persistence and degradability	No information available.
12.3. Bioaccumulative potential	
Bioaccumulation	
12.4. Mobility in soil	
Mobility in soil	No information available
12.5. Results of PBT and vPvB assessment	
PBT and vPvB assessment	
Chemical name	PBT and vPvB assessment
Sodium chloride	The substance is not PBT / vPvB PBT assessment does not apply
3(2H)-Isothiazolone, 2-methyl-	The substance is not PBT / vPvB
12.6. Endocrine disrupting properties	
Endocrine disrupting properties	No information available.
12.7. Other adverse effects	
No information available.	

13. Disposal considerations

13.1. Waste treatment methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

IATA	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
IMDG	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available
RID	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
ADR	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture	
National regulations	
France	
Occupational Illnesses (R-463-3, France)	
Chemical name	French RG number
Sodium chloride 7647-14-5	RG 78

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents
at work.
Authorizations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
3(2H)-Isothiazolone, 2-methyl- - 2682-20-4	75.	-

Persistent Organic Pollutants
Not applicable
Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

EU - Plant Protection Products (1107/2009/EC)

Products (1107/2009/EC)	
Chemical name	EU - Plant Protection Products (1107/2009/EC)
Sucrose - 57-50-1	Plant protection agent
Sodium chloride - 7647-14-5	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)	
International Inventories	
TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:	
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List	
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances	
ENCS - Japan Existing and New Chemical Substances	
IECSC - China Inventory of Existing Chemical Substances	
KECL - Korean Existing and Evaluated Chemical Substances	
PICCS - Philippines Inventory of Chemicals and Chemical Substances	
AIIC - Australian Inventory of Industrial Chemicals	
NZIoC - New Zealand Inventory of Chemicals	
15.2. Chemical safety assessment	
Chemical Safety Report	No information available

16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet
Full text of H-Statements referred to under section 3
EUH071 - Corrosive to the respiratory tract
H301 - Toxic if swallowed
H310 - Fatal in contact with skin
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
Legend
SVHC: Substances of Very High Concern for Authorization:
Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method

Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Further Informationen

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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

1.1 Product identifier

Substance name: Enzyme Conjugate

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

Relevant identified uses:
Reagent / Immunoassay
For professional use only.

Uses advised against:
/

1.3 Details of the supplier of the safety data sheet:

Supplier
DLD Diagnostika GmbH
Gesellschaft für Diagnostika und medizinische Geräte mbH

Address
Adlerhorst 15
DE – 22459 Hamburg

Information contact
E-Mail: contact@dld-diagnostika.de
Internet: www.dld-diagnostika.de

Telephone / Fax / E-Mail
Tel +49 (0) 40-555 87 10 / Fax +49 (0) 40-555 87 111 / contact@dld-diagnostika.de

1.4 Emergency Telephone Number

Tel +49 (0) 4191-722 68 65

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:
Skin sensitization; Category 1 – (H317)

2.2 Label elements

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

Hazard pictograms / Signal words:

Warning

Hazard-determining components of labelling

Contains 3(2H)-Isothiazolone, 2-methyl-, 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone

Hazard statements

H317 - May cause an allergic skin reaction
EUH071 - Corrosive to the respiratory tract

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/ container to an approved waste disposal plant

2.3 Other hazards

No information available.

3. Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Sucrose 57-50-1	1 - <10	No data available	200-334-9	No data available	-	-	-
Sodium chloride 7647-14-5	0.1 - <1	No data available	231-598-3	No data available	-	-	-
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	<0.1	No data available	220-239-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH071)	Skin Sens. 1A :: C>=0.0015%	10	1
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	<0.1	No data available	-	Acute Tox. 3 (H301) Acute Tox. 2 (H310) Acute Tox. 2 (H330) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH071)	Eye Irrit. 2 :: 0.06%<=C<0.6% Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6% Skin Sens. 1A :: C>=0.0015% Eye Dam. 1 :: C>=0.6%	100	100

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

Acute Toxicity Estimate

4. First aid measures

4.1. Description of first aid measures	
General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Rinse mouth.
4.2. Most important symptoms and effects, both acute and delayed	
Symptoms	Itching. Rashes. Hives.
4.3. Indication of any immediate medical attention and special treatment needed	
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media	
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
5.2. Special hazards arising from the substance or mixture	
Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by skin contact.
5.3. Advice for firefighters	
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
For emergency responders	Use personal protection recommended in Section 8.
6.2. Environmental precautions	
Environmental precautions	See Section 12 for additional Ecological Information.
6.3. Methods and material for containment and cleaning up	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
6.4. Reference to other sections	
Reference to other sections	See section 8 for more information. See section 13 for more information.

7. Handling and storage

7.1. Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
7.2. Conditions for safe storage, including any incompatibilities	
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
7.3. Specific end use(s)	
Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.

8. Exposure controls/personal protection

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Sucrose 57-50-1	-	-	TWA: 10 mg/m3	TWA: 10.0 mg/m3	TWA: 10 mg/m3 STEL: 20 mg/m3
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	-	TWA: 0.05 mg/m3	-	-	-
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	-	TWA: 0.05 mg/m3	-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Sucrose 57-50-1	-	-	-	TWA: 10 mg/m3	-
Chemical name	France	Germany	Germany MAK	Greece	Hungary
Sucrose 57-50-1	TWA: 10 mg/m3	-	-	-	-
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	-	-	TWA: 0.2 mg/m3 Peak: 0.4 mg/m3	-	-
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	-	-	TWA: 0.2 mg/m3 Peak: 0.4 mg/m3	-	-
Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
Sucrose 57-50-1	TWA: 10 mg/m3 STEL: 20 mg/m3	-	TWA: 10 mg/m3	TWA: 5 mg/m3	TWA: 10 mg/m3

Sodium chloride 7647-14-5	-	-	-	TWA: 5 mg/m3	TWA: 5 mg/m3
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Sucrose 57-50-1	TWA: 10 mg/m3	-	-	-	TWA: 10 mg/m3

Chemical name	Sweden	Switzerland	United Kingdom
Sucrose 57-50-1	-	-	TWA: 10 mg/m3 STEL: 20 mg/m3
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	-	TWA: 0.2 mg/m3 STEL: 0.4 mg/m3	-
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	-	TWA: 0.2 mg/m3 STEL: 0.4 mg/m3	-

Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
Derived No Effect Level (DNEL)	No information available.
Predicted No Effect Concentration (PNEC)	No information available.
8.2. Exposure controls	
Personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties	
Physical state	Liquid
Appearance	clear
Color	amber
Odor	No information available.
Odor threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	Neutral
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	Completely soluble	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information
9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

10. Stability and reactivity

10.1. Reactivity	
Reactivity	No information available.
10.2. Chemical stability	
Stability	Stable under normal conditions.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
10.3. Possibility of hazardous reactions	
Possibility of hazardous reactions	None under normal processing.
10.4. Conditions to avoid	
Conditions to avoid	None known based on information supplied.
10.5. Incompatible materials	
Incompatible materials	None known based on information supplied.

10.6. Hazardous decomposition products	
Hazardous decomposition products	None known based on information supplied.

11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008			
Information on likely routes of exposure			
Product Information			
Inhalation	Specific test data for the substance or mixture is not available.		
Eye contact	Specific test data for the substance or mixture is not available.		
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).		
Ingestion	Specific test data for the substance or mixture is not available.		
Symptoms related to the physical, chemical and toxicological characteristics			
Symptoms	Itching. Rashes. Hives.		
Acute toxicity			
Numerical measures of toxicity			
No information available			
Component Information			
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sucrose	= 29700 mg/kg (Rat)	-	-
Sodium chloride	= 3 g/kg (Rat)	> 10000 mg/kg (Rabbit)	> 42 mg/L (Rat) 1 h
3(2H)-Isothiazolone, 2-methyl-	232 - 249 mg/kg (Rat) = 120 mg/kg (Rat)	= 200 mg/kg (Rabbit)	= 0.11 mg/L (Rat) 4 h
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	= 53 mg/kg (Rat)	= 87.12 mg/kg (Rabbit)	-
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Skin corrosion/irritation	No information available.		
Serious eye damage/eye irritation	No information available.		
Respiratory or skin sensitization	May cause sensitization by skin contact.		
Germ cell mutagenicity	No information available.		
Carcinogenicity	No information available.		
Reproductive toxicity	No information available.		
STOT - single exposure	No information available.		
STOT - repeated exposure	No information available.		
Aspiration hazard	No information available.		

11.2. Information on other hazards	
11.2.1. Endocrine disrupting properties	
Endocrine disrupting properties	No information available.
11.2.2. Other information	
Other adverse effects	No information available.

12. Ecological information

12.1. Toxicity				
Ecotoxicity		Harmful to aquatic life.		
Unknown aquatic toxicity		Contains 0 % of components with unknown hazards to the aquatic environment.		
Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium chloride	-	LC50: 5560 - 6080mg/L (96h, Lepomis macrochirus) LC50: =12946mg/L (96h, Lepomis macrochirus) LC50: 6020 - 7070mg/L (96h, Pimephales promelas) LC50: =7050mg/L (96h, Pimephales promelas) LC50: 6420 - 6700mg/L (96h, Pimephales promelas) LC50: 4747 - 7824mg/L (96h, Oncorhynchus mykiss)	-	EC50: =1000mg/L (48h, Daphnia magna) EC50: 340.7 - 469.2mg/L (48h, Daphnia magna)
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	EC50: 0.11 - 0.16mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.03 - 0.13mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =1.6mg/L (96h, Oncorhynchus mykiss)	-	EC50: =4.71mg/L (48h, Daphnia magna) EC50: 0.12 - 0.3mg/L (48h, Daphnia magna) EC50: 0.71 - 0.99mg/L (48h, Daphnia magna)

12.2. Persistence and degradability	
Persistence and degradability	No information available.
12.3. Bioaccumulative potential	
Bioaccumulation	
Component Information	
Chemical name	Partition coefficient
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	-0.71 - 0.75

12.4. Mobility in soil	
Mobility in soil	No information available.
12.5. Results of PBT and vPvB assessment	
PBT and vPvB assessment	
Chemical name	PBT and vPvB assessment
Sodium chloride	The substance is not PBT / vPvB PBT assessment does not apply
3(2H)-Isothiazolone, 2-methyl-	The substance is not PBT / vPvB
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	The substance is not PBT / vPvB
12.6. Endocrine disrupting properties	
Endocrine disrupting properties	No information available.
12.7. Other adverse effects	
No information available.	

13. Disposal considerations

13.1. Waste treatment methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

IATA	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
IMDG	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated

14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available
RID	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
ADR	
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture	
National regulations	
France	
Occupational Illnesses (R-463-3, France)	
Chemical name	French RG number
Sodium chloride 7647-14-5	RG 78

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents
at work.
Authorizations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
3(2H)-Isothiazolone, 2-methyl- - 2682-20-4	75.	-
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone - 55965-84-9	75.	-

Persistent Organic Pollutants
Not applicable
Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

EU - Plant Protection Products (1107/2009/EC)

Products (1107/2009/EC)	
Chemical name	EU - Plant Protection Products (1107/2009/EC)
Sucrose - 57-50-1	Plant protection agent
Sodium chloride - 7647-14-5	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)	
International Inventories	
TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status
Legend:	
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List	
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances	
ENCS - Japan Existing and New Chemical Substances	

IECSC - China Inventory of Existing Chemical Substances	
KECL - Korean Existing and Evaluated Chemical Substances	
PICCS - Philippines Inventory of Chemicals and Chemical Substances	
AIIC - Australian Inventory of Industrial Chemicals	
NZIoC - New Zealand Inventory of Chemicals	
15.2. Chemical safety assessment	
Chemical Safety Report	No information available

16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet
Full text of H-Statements referred to under section 3
EUH071 - Corrosive to the respiratory tract
H301 - Toxic if swallowed
H310 - Fatal in contact with skin
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
Legend
SVHC: Substances of Very High Concern for Authorization:
Legend Section 8: Exposure controls/personal protection
TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method

Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Further Informationen

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.