

Useable for:

AR E-8800R Estradiol rat ELISA

Single components with dangerous ingredients:

REF: AR E-0080	<u>Stop Solution</u>	STOP-SOLN
REF: AR E-8840	<u>Enzyme Conjugate</u>	CONJUGATE-CONC 100x
REF: AR E-8841	<u>Enzyme Conjugate Diluent</u>	DILUENT

Not listed single components contain no hazardous substances in concentrations to be declared, a labelling is not required.

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

1.1 Product identifier

Trade name: Stop Solution STOP-SOLN
Article number: **AR E-0080**

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

Identified uses:

laboratory reagent / Immunoassay
 The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier:

LDN Labor Diagnostika Nord GmbH & Co. KG
 Am Eichenhain 1
 48531 Nordhorn, Germany
 Phone +49 5921 8197 200
 Fax +49 5921 8197 201
 E-Mail support@ldn.de

1.4 Emergency telephone number

+49 5921 8197 200

2 Hazards identification

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008
 Corrosive to metals, Category 1, H290
 Skin corrosive, Category 1B, H314

2.2 Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.

Precautionary statements:

P234 Keep only in original packaging.
 P390 Absorb spillage to prevent material damage.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P302 + P352 IF ON SKIN: Wash with plenty of water and soap.

2.3 Other hazards

None known.

3 Composition / information on ingredients**3.1 Substances**

Not applicable.

3.2 Mixtures**Composition / information on ingredients**

CAS: 7647-01-0 hydrochloric acid < 10 %
H290; H314; H335

Additional information:

For the full text of the H-Statements mentioned in this section, see section 16.

4 First aid measures**4.1 First aid measures**

After inhalation: fresh air, consult doctor in case of complaints.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

After swallowing: drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

5 Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media:

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

Unsuitable extinguishing media:

For this substance / mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions

No special precautionary measures necessary.

6.3 Methods and materials for containment and cleaning up

Observe possible material restrictions! Take up with liquid-absorbent and neutralising material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

Indications about possible material restrictions see sections 7 and 10 and about waste treatment see section 13.

7 Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:

Observe label precautions.

Hygiene measures:

Change contaminated clothing. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:

Tightly closed and dry.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8 Exposure controls / personal protection

8.1 Control parameters

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2 Exposure controls

Engineering measures:

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures:

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately. Avoid contact with the eyes and skin.

Respiratory protection:

In case of good room ventilation, not necessary.

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

Protection of hands:

Protective gloves.

Material of gloves:

Chemical protection gloves are to be selected according to the concentration and quantity of the hazardous substance concentration and quantity in workplace.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.



Eye protection:

Tightly sealed goggles



Body protection:

lab coat

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	odourless
Odour Threshold	Not applicable
pH	acidic
Melting point	No information available
Boiling point/boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Lower explosion limit	No information available
Upper explosion limit	No information available
Vapour pressure	No information available
Relative vapour density	No information available
Density	ca. 1.032 g/cm ³ at 20 °C
Relative density	No information available
Water solubility	soluble
Partition coefficient: n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity, dynamic	No information available
Explosive properties	Not classified as explosive
Oxidizing properties	none

9.2 Other data

Corrosion: May be corrosive to metals.

10 Stability and reactivity

10.1 Reactivity

Corrosive to metals.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Release of an acute toxic gas: Metals.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

Different metals.

10.6 Hazardous decomposition products

No dangerous decomposition products known.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No information available.

Skin corrosion/irritation

slight irritation

Serious eye damage/irritation

slight irritation

Respiratory or skin sensitisation

No sensitizing effects known.

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 Additional information

On the basis of the morphology of the product, no hazardous properties are to be expected when it is handled and used with appropriate care.
Handle in accordance with good industrial hygiene and safety practice.

12 Ecological information**12.1 Toxicity**

No further relevant information available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

Substance(s) in the mixture do(es) not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII, or a PBT/vPvB assessment was not conducted.

12.6 Other adverse effects

No further relevant information available.

13 Disposal considerations**13.1 Waste treatment methods**

Dispose of packaging according to applicable local, state, and federal regulations. Packaging's that may not be cleansed are to be disposed of in the same manner as the product.

14 Transport information

This product is part of a kit. Information in this section refers to the kit as a whole.

14.1 UN No.

No dangerous good in sense of this transport regulation.

14.2 UN Proper shipping name

No dangerous good in sense of this transport regulation.

14.3 Class

No dangerous good in sense of this transport regulation.

14.4 Packing group

No dangerous good in sense of this transport regulation.

14.5 Environmental hazards

no.

14.6 Special precautions for user

no.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant.

15 Regulatory information

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

EU regulations

Major Accident Hazard: SEVESO III

Not applicable

Employment restrictions:

Observe employment restrictions in accordance with the youth employment protection regulations (94/33/EC).

Substances of very high concern (SVHC):

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH).

National legislation

Water hazard class:

Water hazard class 1 (slightly hazardous for water)

Storage class:

10 - 13

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Department issuing SDS:

Safety Representative

Contact:

LDN

1 Identification of the substance / mixture and of the company / undertaking**1.1 Product identifier****Trade name:****Enzyme Conjugate**

CONJUGATE-CONC 100x

Article number:**AR E-8840****1.2 Relevant identified uses of the substance or mixture and uses advised against**
Identified uses:

laboratory reagent / Immunoassay

The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet**Manufacturer / Supplier:**

LDN Labor Diagnostika Nord GmbH & Co. KG

Am Eichenhain 1

48531 Nordhorn, Germany

Phone +49 5921 8197 200

Fax +49 5921 8197 201

E-Mail support@ldn.de

1.4 Emergency telephone number

+49 5921 8197 200

2 Hazards identification**2.1 Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Skin sensitisation, Category 1, H317

2.2 Label elements**REGULATION (EC) No 1272/2008****Hazard pictograms:****Signal word:**

Warning

Hazard statements:

H317 May cause an allergic skin reaction.

Precautionary statements:

P261 Avoid breathing mist, vapors, spray

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear eye protection, protective gloves, protective clothing

P302+P352 IF ON SKIN: Wash with plenty of soap and water

P333+P313 If skin irritation or rash occurs: Get medical advice/attention

P362+P364 Take off contaminated clothing and wash it before reuse

2.3 Other hazards

Note: this product is intended for laboratory use by professional user only. Use appropriate personal protective equipment while working with the reagents provided. None of the components is listed as PBT or vPvB relevant.

3 Composition / information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

Composition / information on ingredients

<i>Enzyme Conjugate</i>						
<i>Ingredients</i>	<i>CAS No [EC Index No]</i>	<i>Containing Conc. (%)</i>	<i>Classification according to regulation (EC) No 1272/2008 (CLP) (related to the concentrated form)</i>		<i>Pictogram, Signal Word Code(s)</i>	<i>Specific Conc. Limits, M- factors</i>
			<i>Hazard Class and Category Code(s)</i>	<i>Hazard statement Code(s)</i>		
CMIT/MIT: Mixture, 5-chloro-2-methyl- 4-isothiazolin-3-one [EC no. 247-500- 7]; and 2-methyl- 2H -isothiazol-3- one [EC no. 220-239-6] (3:1)	55965-84-9 [613-167-00- 5]	< 0.01 %	Acute Tox. 3 (Oral) Acute Tox. 3 (Dermal) Acute Tox. 3 (Inhalation) Acute Tox. 3 (Inhalation:dust,mist) Skin Corr. 1B Skin Sens. 1	H301 H311 H331 H314 H317 H400 H410	GHS06 GHS05 GHS09 Dgr	Skin Sens. 1, H317 (C >= 0.0015%) Eye Irrit. 2, H319 (0.06% =<C < 0.6%) Skin Irrit. 2, H315 (0.06% =<C < 0.6%) Skin Corr. 1B, H314 (C >= 0.6%)
2-methyl-2H- isothiazol-3-one [EC no. 220-239-6]	2682-20-4 [613-167-00- 5]	< 0.02%	Aquatic Acute 1 Aquatic Chronic 1			

Additional information:

See section 16 for the detailed text of the above stated H-, P- and S-phrases.

4 First aid measures

4.1 First aid measures

General advice: Take off contaminated clothing and shoes. Consult physician in case of complaints.

If inhaled: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

In case of skin contact: Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

In case of eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

If swallowed: If swallowed, rinse mouth with plenty of water. Do NOT induce vomiting. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects:	May cause an allergic skin reaction.
Symptoms/effects after inhalation:	May cause respiratory irritation.
Symptoms/effects after skin contact:	May cause an allergic skin reaction.
Symptoms/effects after eye contact:	Direct contact with eyes is likely to be irritating.
Symptoms/effects after ingestion:	May cause gastrointestinal irritation.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5 Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media:

Use dry chemical powder, water spray or alcohol resistant foam.

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture

Not combustible.

Hazardous combustion products

In case of fire may be liberated: hydrogen chloride (HCl), may produce toxic fumes of carbon monoxide if burning.

5.3 Advice for firefighters

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

Do not dispose of fire-fighting water in the environment.

Do not enter fire area without proper protective equipment, including respiratory protection.

6 Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wearing of suitable protective equipment (including personal protective equipment) to prevent any contamination of skin, eyes and personal clothing.

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Ventilate area.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and materials for containment and cleaning up

Covering of drains. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Wash spill area thoroughly with plenty of soap and water.

Place in appropriate containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

Incompatible materials see section 10.

For disposal see section 13.

7 Handling and storage

7.1 Precautions for safe handling

Use all reagents in accordance with the relevant package insert provided with the product. Do not smoke, eat, drink or apply cosmetics in areas where kit reagents are handled.

Wear disposable gloves when handling reagents.

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Never pipet by mouth and avoid contact of reagents and specimens with skin and mucous membranes.

Handling should be done in accordance with the procedures defined by an appropriate national biohazard safety guideline or regulation.

7.2 Conditions for safe storage, including any incompatibilities

Store tightly closed on a cool dry place. Reseal opened bottles carefully and store in an upright position.

Keep only in the original container.

Recommended storage temperature: as indicated in the package inserts

Storage classification: 12 (non flammable liquids)

segregate from: class 1 (explosives) class 4.1A (flammable solids)
class 4.3 (dangerous when wet) class 6.2 (infectious)
class 7 (radioactive)

Further information:

Store separated from foodstuffs.

Protect from unauthorized access.

7.3 Specific end use(s)

This product is intended for laboratory use by professional users only.

Use only in accordance to the manual.

8 Exposure controls / personal protection

8.1 Control parameters

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)		
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0.2 mg/m ³ inhalable fraction
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	0.4 mg/m ³ inhalable fraction

8.2 Exposure controls

General hygiene directives should be considered.

Keep away from foodstuffs and beverages. Wash hands before breaks and at the end of the working day.

Provide adequate ventilation of the work station.

Personal protective equipment

Skin Protection: Protective gloves of nitril rubber or nature latex, satisfying the norm EN 374

Eye / face protection: Safety glasses with side shields conforming to EN 166 (EU), NIOSH (US)

Body protection: Impenetrable protective clothing

Respiratory protection: Respiratory protection necessary at: Aerosol or mist

formation. Type: E (against acidic gases like sulphur dioxide or hydrogen chloride, colour code: Yellow). Use NIOSH (or other equivalent national standard) -approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment. EN 250.

Environmental exposure controls:

Keep away from drains. Avoid contamination of water or soil.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Colour	red
Odour	odorless
Odour threshold	Not applicable
pH	7.4 ± 0.05
Melting point	No data available.
Boiling point/boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Lower explosion limit	No data available.
Upper explosion limit	No data available.
Vapour pressure	No data available.
Relative vapour density	No data available.
Density	No data available.
Relative density	No data available.
Water solubility	fully miscible
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	Product is not selfigniting
Decomposition temperature	No data available.
Viscosity, dynamic	No data available.
Explosive properties	product does not present an explosion hazard
Oxidizing properties	No data available.

9.2 Other data

No other information available.

10 Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

The materials are stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No further relevant information available.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Thermal decomposition generates: Carbon oxides (CO, CO₂). Nitrogen oxides. Other toxic fumes.

11 Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

No information available.

Skin corrosion/irritation

No information available.

Serious eye damage/irritation

No information available.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

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 Additional information

Hazardous properties cannot be excluded but are unlikely when the products are handled appropriately.

12 Ecological information**12.1 Toxicity**

According to 1272/2008/EU: It is not classified as water hazardous.

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)

LC50 fish 1 0.19 mg/l Salmo Gairdneri

EC50 Daphnia 1 0.028 mg/l Crassostrea virg
EC50 72h algae (1) 0.018 mg/l Selenastrum cap

12.2 Persistence and degradability

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)
Not rapidly degradable

12.3 Bioaccumulative potential

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)
Log Kow > 5 Significant bioaccumulation

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13 Disposal considerations

13.1 Waste treatment methods

Product:

This product and its container must be disposed of as hazardous waste. Waste should be disposed of in accordance with federal, state and local environmental control regulations. Must not be composed together with household garbage.

Uncleaned packaging:

Waste should be disposed of in accordance with federal, state and local environmental control regulations. Must not be composed together with household garbage.

General notes:

Do not empty into drains.

14 Transport information

No hazardous material as defined by the transport regulations (ADR/RID, IMDG Code, ICAO TI/IATA DGR).

14.1 UN No.

no data available

14.2 UN Proper shipping name

no data available

14.3 Class

no data available

14.4 Packing group

no data available

14.5 Environmental hazards

no data available

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15 Regulatory information

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

This Safety Data Sheet is according to:

- 1907/2006/EC Registration, evaluation and authorization of chemicals regulation (REACH)
- 1272/2008/EC Classification, labelling and packaging regulation (CLP, globally harmonized system GH replaces 67/548/EEC and 1999/45/EC, amending 1907/2006/EC
- 453/2010/EC Compilation of safety data sheets regulation (SDS), amending 1907/2006/EC
- 2016/1179/EC Commission Regulation (EU) 2016/1179 of 19 July 2016 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 487/2013/EC COMMISSION REGULATION (EU) No 487/2013 of 8 May 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

15.2 Chemical Safety Assessment

No data available.

16 Other information

Relevant phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
H301	Toxic if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction.





H331	Toxic if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Classification according to Regulation (EC) 1272/2008 Classification procedure
 Skin Sens. 1 Calculation method

"P statements" and "S Phrases" used in this Safety data sheet

P261	Avoid breathing mist, vapors, spray
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear eye protection, protective gloves, protective clothing
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P333+P313	If skin irritation or rash occurs: Get medical advice/attention
P362+P364	Take off contaminated clothing and wash it before reuse

"GHS Pictograms" used in this Safety data sheet

Reg. 1272/2008	Pictograms
GHS05	
GHS06	
GHS07	
GHS09	

Department issuing SDS:

Safety Representative

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact:

LDN

1 Identification of the substance / mixture and of the company / undertaking**1.1 Product identifier**

Trade name: Enzyme Conjugate Diluent DILUENT
Article number: **AR E-8841**

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

laboratory reagent / Immunoassay
The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet**Manufacturer / Supplier:**

LDN Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
Phone +49 5921 8197 200
Fax +49 5921 8197 201
E-Mail support@ldn.de

1.4 Emergency telephone number

+49 5921 8197 200

2 Hazards identification**2.1 Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Skin sensitisation, Category 1, H317

2.2 Label elements**REGULATION (EC) No 1272/2008****Hazard pictograms:****Signal word:**

Warning

Hazard statements:

H317 May cause an allergic skin reaction.

Precautionary statements:

P261 Avoid breathing mist, vapors, spray
P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear eye protection, protective gloves, protective clothing
P302+P352 IF ON SKIN: Wash with plenty of soap and water
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P362+P364 Take off contaminated clothing and wash it before reuse

2.3 Other hazards

Note: this product is intended for laboratory use by professional user only. Use appropriate personal protective equipment while working with the reagents provided. None of the components is listed as PBT or vPvB relevant.

3 Composition / information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

Composition / information on ingredients

<i>Enzyme Conjugate</i>						
<i>Ingredients</i>	<i>CAS No [EC Index No]</i>	<i>Containing Conc. (%)</i>	<i>Classification according to regulation (EC) No 1272/2008 (CLP) (related to the concentrated form)</i>		<i>Pictogram, Signal Word Code(s)</i>	<i>Specific Conc. Limits, M- factors</i>
			<i>Hazard Class and Category Code(s)</i>	<i>Hazard statement Code(s)</i>		
CMIT/MIT: Mixture, 5-chloro-2-methyl- 4-isothiazolin-3-one [EC no. 247-500- 7]; and 2-methyl- 2H -isothiazol-3- one [EC no. 220-239-6] (3:1)	55965-84-9 [613-167-00- 5]	< 0.01 %	Acute Tox. 3 (Oral) Acute Tox. 3 (Dermal) Acute Tox. 3 (Inhalation) Acute Tox. 3 (Inhalation:dust,mist) Skin Corr. 1B Skin Sens. 1	H301 H311 H331 H314 H317 H400 H410	GHS06 GHS05 GHS09 Dgr	Skin Sens. 1, H317 (C >= 0.0015%) Eye Irrit. 2, H319 (0.06% =<C < 0.6%) Skin Irrit. 2, H315 (0.06% =<C < 0.6%) Skin Corr. 1B, H314 (C >= 0.6%)
2-methyl-2H- isothiazol-3-one [EC no. 220-239-6]	2682-20-4 [613-167-00- 5]	< 0.02%	Aquatic Acute 1 Aquatic Chronic 1			

Additional information:

See section 16 for the detailed text of the above stated H-, P- and S-phrases.

4 First aid measures

4.1 First aid measures

General advice: Take off contaminated clothing and shoes. Consult physician in case of complaints.

If inhaled: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

In case of skin contact: Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

In case of eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

If swallowed: If swallowed, rinse mouth with plenty of water. Do NOT induce vomiting. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects:	May cause an allergic skin reaction.
Symptoms/effects after inhalation:	May cause respiratory irritation.
Symptoms/effects after skin contact:	May cause an allergic skin reaction.
Symptoms/effects after eye contact:	Direct contact with eyes is likely to be irritating.
Symptoms/effects after ingestion:	May cause gastrointestinal irritation.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use dry chemical powder, water spray or alcohol resistant foam.

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture

Not combustible.

Hazardous combustion products

In case of fire may be liberated: hydrogen chloride (HCl), may produce toxic fumes of carbon monoxide if burning.

5.3 Advice for firefighters

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

Do not dispose of fire-fighting water in the environment.

Do not enter fire area without proper protective equipment, including respiratory protection.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wearing of suitable protective equipment (including personal protective equipment) to prevent any contamination of skin, eyes and personal clothing.

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Ventilate area.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and materials for containment and cleaning up

Covering of drains. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Wash spill area thoroughly with plenty of soap and water.

Place in appropriate containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

Incompatible materials see section 10.

For disposal see section 13.

7 Handling and storage

7.1 Precautions for safe handling

Use all reagents in accordance with the relevant package insert provided with the product. Do not smoke, eat, drink or apply cosmetics in areas where kit reagents are handled.

Wear disposable gloves when handling reagents.

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Never pipet by mouth and avoid contact of reagents and specimens with skin and mucous membranes.

Handling should be done in accordance with the procedures defined by an appropriate national biohazard safety guideline or regulation.

7.2 Conditions for safe storage, including any incompatibilities

Store tightly closed on a cool dry place. Reseal opened bottles carefully and store in an upright position.

Keep only in the original container.

Recommended storage temperature: as indicated in the package inserts

Storage classification: 12 (non flammable liquids)

segregate from: class 1 (explosives) class 4.1A (flammable solids)
class 4.3 (dangerous when wet) class 6.2 (infectious)
class 7 (radioactive)

Further information:

Store separated from foodstuffs.

Protect from unauthorized access.

7.3 Specific end use(s)

This product is intended for laboratory use by professional users only.

Use only in accordance to the manual.

8 Exposure controls / personal protection

8.1 Control parameters

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)		
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0.2 mg/m ³ inhalable fraction
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	0.4 mg/m ³ inhalable fraction

8.2 Exposure controls

General hygiene directives should be considered.

Keep away from foodstuffs and beverages. Wash hands before breaks and at the end of the working day.

Provide adequate ventilation of the work station.

Personal protective equipment

Skin Protection: Protective gloves of nitril rubber or nature latex, satisfying the norm EN 374

Eye / face protection: Safety glasses with side shields conforming to EN 166 (EU), NIOSH (US)

Body protection: Impenetrable protective clothing

Respiratory protection: Respiratory protection necessary at: Aerosol or mist

formation. Type: E (against acidic gases like sulphur dioxide or hydrogen chloride, colour code: Yellow). Use NIOSH (or other equivalent national standard) -approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment. EN 250.

Environmental exposure controls:

Keep away from drains. Avoid contamination of water or soil.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Colour	red
Odour	odorless
Odour threshold	Not applicable
pH	7.4 ± 0.05
Melting point	No data available.
Boiling point/boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Lower explosion limit	No data available.
Upper explosion limit	No data available.
Vapour pressure	No data available.
Relative vapour density	No data available.
Density	No data available.
Relative density	No data available.
Water solubility	fully miscible
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	Product is not selfigniting
Decomposition temperature	No data available.
Viscosity, dynamic	No data available.
Explosive properties	product does not present an explosion hazard
Oxidizing properties	No data available.

9.2 Other data

No other information available.

10 Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

The materials are stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No further relevant information available.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Thermal decomposition generates: Carbon oxides (CO, CO₂). Nitrogen oxides. Other toxic fumes.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No information available.

Skin corrosion/irritation

No information available.

Serious eye damage/irritation

No information available.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

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 Additional information

Hazardous properties cannot be excluded but are unlikely when the products are handled appropriately.

12 Ecological information

12.1 Toxicity

According to 1272/2008/EU: It is not classified as water hazardous.

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)

LC50 fish 1 0.19 mg/l Salmo Gairdneri

EC50 Daphnia 1 0.028 mg/l Crassostrea virg
EC50 72h algae (1) 0.018 mg/l Selenastrum cap

12.2 Persistence and degradability

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)
Not rapidly degradable

12.3 Bioaccumulative potential

Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (CAS-No. 55965-84-9)
Log Kow > 5 Significant bioaccumulation

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13 Disposal considerations

13.1 Waste treatment methods

Product:

This product and its container must be disposed of as hazardous waste. Waste should be disposed of in accordance with federal, state and local environmental control regulations. Must not be composed together with household garbage.

Uncleaned packaging:

Waste should be disposed of in accordance with federal, state and local environmental control regulations. Must not be composed together with household garbage.

General notes:

Do not empty into drains.

14 Transport information

No hazardous material as defined by the transport regulations (ADR/RID, IMDG Code, ICAO TI/IATA DGR).

14.1 UN No.

no data available

14.2 UN Proper shipping name

no data available

14.3 Class

no data available

14.4 Packing group

no data available

14.5 Environmental hazards

no data available

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15 Regulatory information

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

This Safety Data Sheet is according to:

- 1907/2006/EC Registration, evaluation and authorization of chemicals regulation (REACH)
- 1272/2008/EC Classification, labelling and packaging regulation (CLP, globally harmonized system GH replaces 67/548/EEC and 1999/45/EC, amending 1907/2006/EC
- 453/2010/EC Compilation of safety data sheets regulation (SDS), amending 1907/2006/EC
- 2016/1179/EC Commission Regulation (EU) 2016/1179 of 19 July 2016 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 487/2013/EC COMMISSION REGULATION (EU) No 487/2013 of 8 May 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

15.2 Chemical Safety Assessment

No data available.

16 Other information

Relevant phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
H301	Toxic if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction.

H331
H400
H410





Toxic if inhaled
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

Classification according to Regulation (EC) 1272/2008 Classification procedure
Skin Sens. 1 Calculation method

"P statements" and "S Phrases" used in this Safety data sheet

P261 Avoid breathing mist, vapors, spray
P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear eye protection, protective gloves, protective clothing
P302+P352 IF ON SKIN: Wash with plenty of soap and water
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P362+P364 Take off contaminated clothing and wash it before reuse

"GHS Pictograms" used in this Safety data sheet

Reg. 1272/2008	Pictograms
GHS05	
GHS06	
GHS07	
GHS09	

Department issuing SDS:

Safety Representative

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact:

LDN