

Useable for:

FR E-2100 **Free Estriol ELISA**
ME E-0900 **Insulin ELISA**
MS E-5000 **Cortisol ELISA**

Single components with dangerous ingredients:

REF: FR E-0080	<u>Stop Solution</u>	STOP-SOLN
REF: ME E-0055	<u>Substrate Solution</u>	SUBSTRATE

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: **FR 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 1A, 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.

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: 7664-93-9 sulphuric acid < 5 %
H290; H314

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 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	1.0
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	No information available
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

No further relevant information available.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Corrosive effect on metals.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Metals.

10.6 Hazardous decomposition products

No dangerous decomposition products known.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

sulphuric acid

oral LD50 2140 mg/kg (rat)

inhalative LC50/4h 0.375 mg/l (rat)

Skin corrosion/irritation

May cause irritation to the skin.

Serious eye damage/irritation

May cause irritation to the eyes.

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

sulphuric acid

EC50/48h (static) > 100 mg/l (Daphnia magna)

LC50/72h (static) > 100 mg/l (Desmodesmus subspicatus)
LC50/96h (static) > 16 > 28 mg/l (Lepomis macrochirus)

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.

Department issuing SDS:

Safety Representative

Contact:

LDN

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

Trade name: Substrate Solution SUBSTRATE
Article number: ME E-0055

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
May damage the unborn child, H360D

2.2 Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms:**Signal word:**

Danger

Hazard statements:

H360D May damage fertility or the unborn child.

Precautionary statements:

P280 Wear protective gloves / protective clothing.

2.3 Other hazards

None known.

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

Not applicable.

3.2 Mixtures

Composition / information on ingredients

CAS: 872-50-4 N-Methyl-2-pyrrolidone < 5.0 %

H314, H335, H360D

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

No information available.

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 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 to slightly bluish
Odour	characteristic
Odour threshold	Not applicable
pH	3.6 – 3.8
Melting point	No information available
Boiling point/boiling range	100 °C
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. 1.003 g/cm ³
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	No information available

9.2 Other data

No other data available.

10 Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

If the products are used according to the instructions, no hazardous reactions are to be expected.

10.4 Conditions to avoid

Light, heat, moisture (will not cause a dangerous reaction, but destroys the quality of the product).

10.5 Incompatible materials

Heavy metal salts, complex forming agents and catalases (will not cause a dangerous reaction, but destroys the quality of the product).

10.6 Hazardous decomposition products

No dangerous decomposition products known.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

N-methyl-2-pyrrolidone

oral LD50 3598 mg/kg (rat)

inhalativ LC50 >5,1 mg/l (rat)

Skin corrosion/irritation

Risk of skin resorption.

N-methyl-2-pyrrolidone

dermal LD50 8000 mg/kg (rabbit)

Serious eye damage/irritation

No information available.

Respiratory or skin sensitisation

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

N-methyl-2-pyrrolidone (Repr. 1B)

May damage the unborn child.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

No specific target organ toxicant.

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

bluegill (*Lepomis macrochirus*) LC50 832 mg/l/96h
gold orfe (*Leuciscus idus*) LC50 >500 mg/l/96h
green alga (*Desmodesmus subspicatus*) IC50 >500 mg/l/72h
invertebrates (*Daphnia magna*) EC50 4897 mg/l/48h

12.2 Persistence and degradability

90%/20d easily biologically degradable.

12.3 Bioaccumulative potential

Distribution: log P(o/w): ≤ 4 (for N-methyl-2-pyrrolidone)
There is no bioaccumulation expected.

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:

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:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H360D	May damage fertility or the unborn child.

Department issuing SDS:

Safety Representative

Contact:

LDN