



Preparing for the New Era of Laboratories

# SAFETY DATA SHEET (SDS)

According to regulation (EU) no.1907/2006

## **SALKOWSKI REAGENT**

PRODUCT CODE : L-1283

CAS No : Not available (mixture)

FORMULA : Not available (mixture)

UN No : 3264

website : [www.labotiq.net](http://www.labotiq.net)

# SAFETY DATA SHEET (SDS)

## SALKOWSKI REAGENT



SDS Number : 0631

Date : June 5, 2026

Version : 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product Name** : SALKOWSKI REAGENT  
**Synonyms** : -  
**CAS No.** : Not available (mixture)  
**HS Code** : 3822.1900  
**Chemical Formula** : Not available (mixture)  
**Molecular Weight** : Not available (mixture)  
**Product Code** : L-1283  
**Brand** : Labotiq  
**1.2 Manufacturer** : Labotiq  
**Address** : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111  
**Website** : [www.labotiq.net](http://www.labotiq.net)  
**Email** : [labotiq.id@gmail.com](mailto:labotiq.id@gmail.com)  
**For information** : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710  
**Emergency number** : +6281316894650  
**1.3 Application** : Laboratory chemicals, Manufacture of substances, General Chemical reagent

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

|                                                                           |                                                                          |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Oxidizing liquids, (Category 1)                                           | H271: May cause fire or explosion; strong oxidizer.                      |
| Corrosive to metals, (Category 1)                                         | H290: May be corrosive to metals.                                        |
| Acute toxicity, (Category 4)                                              | H302: Harmful if swallowed.                                              |
| Skin corrosion, (Sub-category 1A)                                         | H314: Causes severe skin burns and eye damage.                           |
| Serious eye damage, (Category 1)                                          | H318: Causes serious eye damage.                                         |
| Specific target organ toxicity – repeated exposure, (Category 2), Thyroid | H373: May cause damage to organs through prolonged or repeated exposure. |

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

#### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

|      |                                                                              |
|------|------------------------------------------------------------------------------|
| H271 | May cause fire or explosion; strong oxidizer.                                |
| H290 | May be corrosive to metals.                                                  |
| H302 | Harmful if swallowed.                                                        |
| H314 | Causes severe skin burns and eye damage.                                     |
| H373 | May cause damage to organs (Thyroid) through prolonged or repeated exposure. |

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## Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280

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

P301 + P312

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314

Get medical advice/ attention if you feel unwell.

## Supplemental Hazard Statements

none

## Reduced Labelling (&lt;= 125 ml)

## Pictogram



## Signal Word

Danger

## Hazard Statements

H271

May cause fire or explosion; strong oxidizer.

H314

Causes severe skin burns and eye damage.

## Precautionary Statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280

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

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

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### 3.1 Substances

Synonyms : SALKOWSKI REAGENT  
 Formula : Not available (mixture)  
 Molecular weight : Not available (mixture)  
 CAS-No. : Not available (mixture)

### 3.2 Mixture

| Component                                                                          | Classification                                                                                                                                                                                                                                                                                                                                                    | Concentration |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Perchloric acid<br>CAS-No. 7601-90-3<br>EC-No. 231-512-4<br>Index-No. 017-006-00-4 | Met. Corr. 1; Acute Tox. 4; Skin Corr. 1A; Eye Dam. 1; STOT RE 2; H271, H290, H302, H314, H318, H373<br>Concentration limits: $\geq 50$ %: Skin Corr. 1A, H314; $10 - < 50$ %: Skin Corr. 1B, H314; $1 - < 10$ %: Skin Irrit. 2, H315; $1 - < 10$ %: Eye Irrit. 2, H319; $> 50$ %: Ox. Liq. 1, H271; $\leq 50$ %: Ox. Liq. 2, H272; $1 - 50$ %: Ox. Liq. 2, H272; | ~60%          |
| iron(III) chloride<br>CAS-No. 7705-08-0<br>EC-No. 231-729-4                        | Met. Corr. 1; Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; H290, H302, H315, H318<br>Concentration limits: $\geq 1$ %: Met. Corr. 1, H290;                                                                                                                                                                                                                            | < 1%          |

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Unsuitable extinguishing media**Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

Unsuitable extinguishing media

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

**5.2 Special hazards arising from the substance or mixture**

Chlorine

Hydrogen chloride gas

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

Has a fire-promoting effect due to release of oxygen.

**5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further information**

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

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**Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition.

**Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

No metal containers. Tightly closed. Separately or together with other oxidising substances only and away from sources of ignition and heat. Because of their oxidation potential these products can raise the burning rate of combustible substances substantially or ignite combustible substances on contact with them.

**Storage class**

Storage class (TRGS 510): 5.1A: Strongly oxidizing hazardous materials

**7.3 Specific end use(s)**

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

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****8.2 Exposure controls****Appropriate engineering controls**

General industrial hygiene practice.

**Personal protective equipment****Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Full contact**

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

**Splash contact**

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

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### Body Protection

protective clothing

### Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

### Control of environmental exposure

Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                              |                                     |
|----------------------------------------------|-------------------------------------|
| Appearance                                   | Form: liquid, clear yellow solution |
| Odour                                        | No data available                   |
| Odour Threshold                              | No data available                   |
| pH                                           | < 1                                 |
| Melting point/freezingpoint                  | No data available                   |
| Initial boiling point and boiling range      | No data available                   |
| Flash point                                  | No data available                   |
| Evaporation rate                             | No data available                   |
| Flammability (solid, gas)                    | No data available                   |
| Upper/lower flammability or explosive limits | No data available                   |
| Vapour pressure                              | No data available                   |
| Vapour density                               | No data available                   |
| Relative density                             | No data available                   |
| Water solubility                             | Completely miscible with water      |
| Partition coefficient: noctanol/water        | No data available                   |
| Auto-ignition temperature                    | No data available                   |
| Decomposition temperature                    | No data available                   |
| Viscosity                                    | No data available                   |
| Explosive properties                         | Not explosive                       |
| Oxidizing properties                         | No data available                   |

### 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

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

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### 10.3 Possibility of hazardous reactions

Amines and alcohols cause exothermic reactions.

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong bases, Strong acids, Amines, Phosphorus halides, Alcohols, Organic materials, Powdered metals, Strong reducing agents, Strong oxidizing agents, Metals

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

#### Acute toxicity

LD50 Oral - Rat - < 2.000 mg/kg

(OECD Test Guideline 423)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Dermal: No data available

#### Skin corrosion/irritation

Remarks: Mixture causes severe burns.

#### Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage. Risk of blindness!

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

#### Carcinogenicity

No data available

#### Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

No data available

#### Specific target organ toxicity - repeated exposure

Mixture may cause damage to organs through prolonged or repeated exposure. - Thyroid

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**Aspiration hazard**

No data available

**Additional Information**

No data available

**Endocrine disrupting properties****Product:****Assessment :**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

**Components****Perchloric acid**

Acute toxicity

LD50 Oral - Rat - 1.100 mg/kg

Remarks: Behavioral:Excitement.

Lungs, Thorax, or Respiration:Dyspnea.

Nutritional and Gross Metabolic:Changes in:Body temperature decrease.

(RTECS)

Acute toxicity estimate Oral - 1.100 mg/kg

(ATE value derived from LD50/LC50 value)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Remarks: Causes severe burns.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.- Thyroid

Aspiration hazard

No data available

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### SECTION 12: Ecological information

#### 12.1 Toxicity

Mixture

Toxicity to daphnia and other aquatic invertebrates

Immobilization EC50 - Daphnia magna (Water flea) - &gt; 100 mg/l - 48 h (OECD Test Guideline 202)

#### 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 12.6 Other adverse effects

Do not empty into drains.

Neutralisation will not reduce ecotoxic effects.

#### Components

Perchloric acid

Toxicity to fish flow-through test

EC50 - Lepomis macrochirus (Bluegill sunfish)- 1.470 mg/l - 96 h  
(US-EPA)

Remarks: The value is given in analogy to the following substances: Sodium perchlorate monohydrate

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 100 mg/l -48 h  
(OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 435,7 mg/l - 72 h  
(OECD Test Guideline 201)

Remarks: The value is given in analogy to the following  
substances: Sodium perchlorate

Toxicity to bacteria static test EC50 - activated sludge - > 1.000 mg/l - 3 h  
(ISO 8192)

Remarks: The value is given in analogy to the following  
substances: Sodium perchlorate

Toxicity to fish(Chronic toxicity)

semi-static test NOEC - Danio rerio (zebra fish) - 10 mg/l - 12  
Weeks

(OECD Test Guideline 215)

Remarks: The value is given in analogy to the following  
substances: Ammonium perchlorate

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### Endocrine disrupting properties

#### Product:

#### Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

No data available

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 3264

IMDG: 3264

IATA: 3264

### 14.2 UN proper shipping name

ADR/RID: Corrosive liquid, acidic, inorganic, n.o.s. (contains perchloric acid)

IMDG: Corrosive liquid, acidic, inorganic, n.o.s. (contains perchloric acid)

IATA: Corrosive liquid, acidic, inorganic, n.o.s. (contains perchloric acid)

Passenger Aircraft: Not permitted for transport

### 14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

#### Further information

No data available

## SECTION 15: Regulatory information

### 15.1 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.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

H271 May cause fire or explosion; strong oxidizer.

H272 May intensify fire; oxidizer.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

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**National Fire Protection Association (U.S.A.):**

Health: 3

Flammability: 0

Reactivity: 1

**Further information**

*The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.*

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