

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 22.04.2024

Version number 7 (replaces version 6)

Revision: 22.04.2024

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

· **1.1 Product identifier**

· **Product name: Phosphate No.1 LR**

· **Catalog number:** 00513041, 513040BT, 4513040BT, 00513049BT, 56T600240

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

· **Application of the substance / the preparation:** Reagent for water analysis

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier:**

Tintometer GmbH
Schleefstraße 8-12
44287 Dortmund
Made in Germany
www.lovibond.com

phone: +49 (0)231 94510-0
e-mail: sales@lovibond.com

The Tintometer Limited
Lovibond® House
Sun Rise Way
Amesbury
Wiltshire SP4 7GR
United Kingdom

phone : +44 1980 664800
e-mail: SDS@lovibond.uk

· **Informing department:**

e-mail: sds@lovibond.com
Product Safety Department

· **1.4 Emergency telephone number:**

+44 1235 239670
Languages: English

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms**



GHS05

· **Signal word** Danger

· **Hazard-determining components of labelling:**

sodium bisulfate

· **Hazard statements**

H318 Causes serious eye damage.

· **Precautionary statements**

P280 Wear protective gloves / eye protection.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P313 Get medical advice/attention.

· **2.3 Other hazards** No further relevant information available.

· **Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

· **Determination of endocrine-disrupting properties**

The product does not contain substances with endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of organic and inorganic compounds

· **Dangerous components:**

CAS: 7681-38-1 EINECS: 231-665-7 Index No: 016-046-00-X Reg.nr.: 01-2119552465-36-XXXX	sodium bisulfate	☠ Eye Dam. 1, H318	40–50%
CAS: 124-04-9 EINECS: 204-673-3 Index No: 607-144-00-9 Reg.nr.: 01-2119457561-38-XXXX	adipic acid	⚠ Eye Irrit. 2, H319	10–20%

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information** Instantly remove any clothing soiled by the product.

· **After inhalation** Supply fresh air; consult doctor in case of symptoms.

· **After skin contact** Instantly wash with water and soap and rinse thoroughly.

· **After eye contact**

Rinse opened eye for several minutes (at least 15 min) under running water.

Call a doctor immediately.

· **After swallowing**

Rinse out mouth and then drink 1-2 glasses of water.

In case of persistent symptoms consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed:**

irritations

after inhalation:

mucous membrane irritation

coughing

after swallowing of large amounts:

gastric or intestinal trouble

sickness

vomiting

cardiovascular disorders

· **Danger** Danger of pulmonary oedema.

· **4.3 Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

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

The product is not combustible.

Formation of toxic gases is possible during heating or in case of fire.

Can be released in case of fire:

Sodium oxide

Sulphur oxides (SOx)

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5.3 Advice for firefighters
Protective equipment:

Wear self-contained breathing apparatus.
Wear full protective suit.

Additional information

Collect contaminated fire fighting water separately. It must not enter drains.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel:

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

Advice for emergency responders: Protective equipment: see section 8
6.2 Environmental precautions: Do not allow product to reach sewage system or water bodies.
6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.
Collect mechanically.
Dispose of contaminated material as waste according to item 13.

6.4 Reference to other sections

See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling: No special precautions necessary if used correctly.
Hygiene measures:

Avoid contact with the eyes.
Take off immediately all contaminated clothing.
Wash hands during breaks and at the end of the work.
Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities
Requirements to be met by storerooms and containers: Store in cool location.
Information about storage in one common storage facility: Store away from oxidising agents.
Further information about storage conditions:

Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.
Protect from the effects of light.
Store under dry conditions.
Protect from humidity and keep away from water.
This product is hygroscopic.

Recommended storage temperature: 20°C +/- 5°C
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Components with limit values that require monitoring at the workplace:

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

DNELs

Derived No Effect Level (DNEL)

CAS: 124-04-9 adipic acid

Oral	DNEL	19 mg/kg (Consumer / acute / systemic effects) 19 mg/kg (Consumer / long-term / systemic effects)
Dermal	DNEL	38 mg/kg (Worker / acute / systemic effects)

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Inhalative	DNEL	38 mg/kg (Worker / long-term /systemic effects)
		19 mg/kg (Consumer / acute / systemic effects)
		19 mg/kg (Consumer / long-term / systemic effects)
		5 mg/m ³ (Worker / acute / local effects)
		264 mg/m ³ (Worker / acute / systemic effects)
		5 mg/m ³ (Worker / long-term / local effects)
		264 mg/m ³ (Worker / long-term /systemic effects)
		65 mg/m ³ (Consumer / acute / systemic effects)
		65 mg/m ³ (Consumer / long-term / systemic effects)

· **Recommended monitoring procedures:**

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

· **PNECs**

Predicted No Effect Concentration (PNEC)

CAS: 124-04-9 adipic acid	
PNEC	59.1 mg/l (Sewage treatment plant)
	0.0126 mg/l (Marine water)
	0.46 mg/l (Aquatic intermittent release)
	0.126 mg/l (Fresh water)
PNEC	0.0228 mg/kg (Soil)
	0.0484 mg/kg (Marine sediment)
	0.484 mg/kg (Fresh water sediment)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Engineering measures:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.

· **Individual protection measures, such as personal protective equipment**

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.

· **Eye/face protection** Tightly sealed safety glasses.

· **Hand protection**

Protective gloves.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· **Material of gloves**

nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

· **Penetration time of glove material**

Value for the permeation: Level = 1 (< 10 min)

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Other skin protection (body protection):** Protective work clothing.

· **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.

· **Recommended filter device for short term use:** Filter P2

· **Environmental exposure controls** Do not allow product to reach sewage system or water bodies.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

- **Physical state** Solid.
- **Form:** Tablets
- **Colour:** White
- **Odour:** Odourless
- **Odour threshold:** Not applicable.
- **Melting point/Freezing point:** Not determined.
- **Boiling point or initial boiling point and boiling range** Not determined.

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· Flammability	The product is not combustible.
· Explosive properties:	Product is not explosive.
· Lower and upper explosion limit	
Lower:	Not applicable.
Upper:	Not applicable.
· Flash point:	Not applicable.
· Auto-ignition temperature:	Not applicable (solid).
· Decomposition temperature:	Not determined.
· pH (60 g/l) at 20°C	< 2
· Kinematic viscosity	Not applicable (solid).
· Solubility	
· Water:	Soluble
· Partition coefficient n-octanol/water (log value)	Not applicable (mixture).
· Vapour pressure:	Not applicable.
· Density and/or relative density	
· Density at 20°C:	2.5 g/cm ³
· Relative density:	Not determined.
· Relative gas density	Not applicable (solid).
· Particle characteristics	Not determined.
· 9.2 Other information	
· Information with regard to physical hazard classes	
· Corrosive to metals	Void
· Other safety characteristics	
· Oxidising properties:	none
· Additional information	
· Solids content:	100.0 %

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see section 10.3
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**
Aqueous solution reacts with metals.
Forms hydrogen in aqueous solution with metals
Liberates acid in contact with water or alcohol.
Reacts with strong alkalis and oxidizing agents.
- **10.4 Conditions to avoid** Strong heating (decomposition)
- **10.5 Incompatible materials:**
metals
aluminium
steel
- **10.6 Hazardous decomposition products:** see section 5

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

CAS: 7681-38-1 sodium bisulfate		
Oral	LD50	2490 mg/kg (rat) (IUCLID)
Dermal	LD50.	>2000 mg/kg (rabbit)
CAS: 124-04-9 adipic acid		
Oral	LD50	5700 mg/kg (rat) (MERCK)
Dermal	LD50	>7940 mg/kg (rabbit) (Registrant, ECHA: no deaths occurred)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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- **Serious eye damage/irritation**

Causes serious eye damage.
Risk of corneal clouding.

- **Information on components:**

CAS: 7681-38-1 sodium bisulfate

Irritation of skin | OECD 404 | (rabbit: no irritation)

Irritation of eyes | OECD 405 | (rabbit: severe irritations)

CAS: 124-04-9 adipic acid

Irritation of skin | OECD 404 | (rabbit: no irritation)

Irritation of eyes | OECD 405 | (rabbit: severe irritations)

- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

- **Information on components:**

CAS: 124-04-9 adipic acid
Sensitisation | OECD 406 | (guinea pig: negative)
(IUCLID)

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity** Based on available data, the classification criteria are not met.

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **Information on components:**

OECD 414: Teratogenicity testing

OECD 473: Mutagenicity testing

OECD 471, 474, 476, 487: Germ cell mutagenicity testing

CAS: 124-04-9 adipic acid
OECD 471 | (negative) (Bacterial Reverse Mutation Test - Ames test)
(IUCLID)

OECD 474 | (negative) (Mammalian Erythrocyte Micronucleus Test)

- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

- **Additional toxicological information:** Other dangerous properties can not be excluded.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

CAS: 7681-38-1 sodium bisulfate
EC50 | 190 mg/l/48h (Daphnia magna)
(IUCLID)
CAS: 124-04-9 adipic acid

LC50 | 511 mg/l/48h (gold orfe)

EC50 | 86 mg/l/48h (Daphnia magna) (OECD 202)

IC50 | 31 mg/l/72h (Desmodesmus subspicatus)
(IUCLID)LC50 | 97 mg/l/96h (fathead minnow)
(ECOTOX)

- **Bacterial toxicity:**

sulphates toxic > 2.5 g/l

CAS: 7681-38-1 sodium bisulfate

EC10 | >1000 mg/l (Pseudomonas putida) (16 h)

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CAS: 124-04-9 adipic acid	
EC50	92 mg/l (Pseudomonas putida) (DIN 38412) (IUCLID)
<ul style="list-style-type: none"> · Other information: Toxic for fish: Sulphates > 7 g/l 	
<ul style="list-style-type: none"> · 12.2 Persistence and degradability 	
CAS: 124-04-9 adipic acid	
OECD 301 B	100 % / 28 d (readily biodegradable) (CO2 Evolution Test)
<ul style="list-style-type: none"> · 12.3 Bioaccumulative potential Pow = n-octanol/wasser partition coefficient log Pow < 1 = Does not accumulate in organisms. 	
CAS: 124-04-9 adipic acid	
log Pow	0.081 (.) (25°C, OECD 107)
<ul style="list-style-type: none"> · 12.4 Mobility in soil No further relevant information available. · 12.5 Results of PBT and vPvB assessment This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006. · 12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties. · 12.7 Other adverse effects Forms corrosive mixtures with water even if diluted. Harmful effect due to pH shift. Avoid transfer into the environment. · Water hazard: Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised. 	

SECTION 13: Disposal considerations

<ul style="list-style-type: none"> · 13.1 Waste treatment methods · Recommendation Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to disposers of hazardous waste. 	
<ul style="list-style-type: none"> · European waste catalogue 	
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
<ul style="list-style-type: none"> · Uncleaned packagings: · Recommendation: Disposal must be made according to official regulations. · Recommended cleaning agent: Water, if necessary with cleaning agent. 	

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, IMDG, IATA 		Void
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, IMDG, IATA 		Void
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG, IATA · Class 		Void
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 		Void
<ul style="list-style-type: none"> · 14.5 Environmental hazards: 		Not applicable.
<ul style="list-style-type: none"> · 14.6 Special precautions for user 		Not applicable.
<ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments 		Not applicable.

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Transport/Additional information:	Not dangerous according to the above specifications.
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SECTION 15: Regulatory information

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

- **Poisons Act UK**

- **Regulated explosives precursors**

None of the ingredients is listed.

- **Regulated poisons**

None of the ingredients is listed.

- **Reportable explosives precursors**

None of the ingredients is listed.

- **Reportable poisons**

None of the ingredients is listed.

- **Regulation (EU) 2019/1148 on the marketing and use of explosives precursors** not regulated

- **Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)**

None of the ingredients is listed.

- **Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:**

None of the ingredients is listed.

- **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)**

None of the ingredients is listed.

- **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**

None of the ingredients is listed.

- **Substances of very high concern (SVHC) according to REACH, Article 57**

This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).

- **Substances of very high concern (SVHC) according to UK REACH**

This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).

- **Directive 2012/18/EU (SEVESO III):**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Information about limitation of use:** Not required.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

- **Training hints** Provide adequate information, instruction and training for operators.

- **Relevant phrases**

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

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Abbreviations and acronyms:

OECD: Organisation for Economic Co-operation and Development

STOT: specific target organ toxicity

SE: single exposure

RE: repeated exposure

EC50: half maximal effective concentration

IC50: half maximal inhibitory concentration

NOEL or NOEC: No Observed Effect Level or Concentration

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Sources

Data arise from safety data sheets, reference works and literature.

IUCLID (International Uniform Chemical Information Database)

ECHA: European Chemicals Agency <http://echa.europa.eu>

ECOTOX Database

*** Data compared to the previous version altered.**