

Safety Data Sheet acc. to OSHA HCS (HazCom 2012)

Printing date 04/23/2024

Reviewed on 04/23/2024

1 Identification

- **Product identifier**
- **Trade name: Phosphate No.1 LR**
- **Catalogue number:** 00513041, 513040BT, 4513040BT, 00513049BT, 56T600240
- **Application of the substance / the mixture:** Reagent for water analysis
- **Manufacturer/Supplier:**
Tintometer Inc.
6456 Parkland Drive
Sarasota, FL 34243
USA
phone: (941) 756-6410
fax: (941) 727-9654
www.lovibond.us
Made in Germany
- **Emergency telephone number:** + 1 866 928 0789 (English, French, Spanish)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Eye Damage 1 H318 Causes serious eye damage.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Hazard Communication Standard (HCS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
sodium bisulfate
- **Hazard statements**
H318 Causes serious eye damage.
- **Precautionary statements**
P280 Wear protective gloves / eye protection.
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.
- **Other hazards** No further relevant information available.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of organic and inorganic compounds
- **Composition and information on Ingredients:**
Percent ranges are used due to the confidential product information.

CAS: 7681-38-1 EINECS: 231-665-7 Index number: 016-046-00-X RTECS: VZ1860000	sodium bisulfate	 Eye Damage 1, H318	40–50%
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CAS: 7757-82-6 EINECS: 231-820-9	sodium sulphate		40–50%
CAS: 124-04-9 EINECS: 204-673-3 Index number: 607-144-00-9 RTECS: AU 8400000	adipic acid	⚠ Eye Irritation 2A, H319	10–20%

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

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately 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.
If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed**
irritations
after inhalation:
mucous membrane irritation
coughing
after swallowing of large amounts:
gastric or intestinal disorders
sickness
vomiting
cardiovascular disorders
- **Danger:** Danger of pulmonary edema.
- **Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **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.
In case of fire, the following can be released:
Sodium oxide
Sulfur oxides (SO_x)
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Ambient fire may liberate hazardous vapours.

6 Accidental release measures

- **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
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.

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Methods and material for containment and cleaning up:

- Ensure adequate ventilation.
- Pick up mechanically.
- Dispose contaminated material as waste according to section 13.

Reference to other sections

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

* 7 Handling and storage

Precautions for safe handling

- Advice on safe handling:** No special precautions are necessary if used correctly.

Hygiene measures:

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

Conditions for safe storage, including any incompatibilities

- Requirements to be met by storerooms and receptacles:** Store in a cool location.
- Information about storage in one common storage facility:** Store away from oxidizing agents.

Further information about storage conditions:

- Protect from heat and direct sunlight.
- Store in cool, dry conditions in well sealed receptacles.
- Protect from exposure to the light.
- Protect from humidity and water.
- This product is hygroscopic.

- Recommended storage temperature:** 20°C +/- 5°C (approx. 68°F)

- Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

CAS: 7757-82-6 sodium sulphate

TLV (USA)	Short-term value: NIC-0.2 mg/m ³ thoracic fraction of aerosol
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CAS: 124-04-9 adipic acid

TLV (USA)	Long-term value: 5 mg/m ³
EL (Canada)	Long-term value: 5 mg/m ³
EV (Canada)	Long-term value: 5 mg/m ³

- Additional information:** The lists that were valid during the creation were used as basis.

Engineering measures:

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

Personal protective equipment:

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

- Breathing equipment:** Use respiratory protective device against the effects of fume/dust/aerosol.

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

Protection of hands:

- 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)

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- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment:**
Do not allow product to reach sewage system or any water course.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **Appearance:**
- **Form / Physical state:** Tablets
- **Color:** White
- **Odor:** Odorless
- **Odor threshold:** Not applicable.
- **pH-value (60 g/l) at 20°C (68°F):** < 2
- **Melting point/freezing point:** Not determined.
- **Initial boiling point and boiling range:** Not determined.
- **Flash point:** Not applicable.
- **Flammability (solid, gas):** The product is not combustible.
- **Auto igniting:** Not applicable (solid).
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Flammability or explosive limits:**
 - **Lower:** Not applicable.
 - **Upper:** Not applicable.
- **Oxidizing properties:** none
- **Vapor Pressure:** Not applicable.
- **Density at 20°C (68°F):** 2.5 g/cm³ (20.86 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility(ies)**
- **Water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not applicable (mixture).
- **Viscosity:** Not applicable.
- **Kinematic:** Not applicable (solid).
- **Other information**
- **Solids content:** 100.0 %

10 Stability and reactivity

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

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*11 Toxicological information

· Information on toxicological effects

· **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)
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Dermal	LD50.	>2000 mg/kg (rabbit)
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CAS: 7757-82-6 sodium sulphate

Oral	LD50.	>2000 mg/kg (rat) (OECD 423) (Registrant, ECHA, limit test)
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Dermal	LD50.	>2000 mg/kg (rat)
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Inhalative	LC50.	>2.4 mg/l4h (rat) (OECD 436) highest concentration that can be produced
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CAS: 124-04-9 adipic acid

Oral	LD50	5700 mg/kg (rat) (MERCK)
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Dermal	LD50	>7940 mg/kg (rabbit) (Registrant, ECHA: no deaths occurred)
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· Primary irritant effect:

· **on the skin:** Based on available data, the classification criteria are not met.

· on the eye:

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)
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Irritation of eyes	OECD 492	(rabbit: severe irritations)
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CAS: 7757-82-6 sodium sulphate

Irritation of skin	OECD 404	(rabbit: no irritation)
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Irritation of eyes	OECD 492	(rabbit: slight irritation)
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CAS: 124-04-9 adipic acid

Irritation of skin	OECD 404	(rabbit: no irritation)
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Irritation of eyes	OECD 492	(rabbit: severe irritations)
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· **Sensitization:** Based on available data, the classification criteria are not met.

· Information on components:

CAS: 7757-82-6 sodium sulphate

Sensitization	OECD 406	(guinea pig: negative)
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CAS: 124-04-9 adipic acid

Sensitization	OECD 406	(guinea pig: negative) (IUCLID)
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· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· **Other information:** see section 8 / 15

· **Synergistic Products:** None

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** The following statements refer to the mixture:

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

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- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **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.
- **Information on components:**
 - OECD 414: Teratogenicity testing
 - OECD 473: Mutagenicity testing
 - OECD 471, 474, 476, 487: Germ cell mutagenicity testing

CAS: 7757-82-6 sodium sulphate	
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) ECHA: Salmonella typhimurium
OECD 476	(negative) (Mammalian Chromosomal Aberration Test)
OECD 473	(negative) (Mammalian Chromosomal Aberration Test)
CAS: 124-04-9 adipic acid	
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) (IUCLID)
OECD 474	(negative) (Mammalian Erythrocyte Micronucleus Test)

*12 Ecological information

· Toxicity

· Aquatic toxicity:

CAS: 7681-38-1 sodium bisulfate	
EC50	190 mg/l/48h (Daphnia magna) (IUCLID)
CAS: 7757-82-6 sodium sulphate	
EC50	1766 mg/l/48h (Daphnia magna) US-EPA
NOEC	8 mg/l /37 d (activated sludge) ECHA
LC50	120 mg/l/96h (mosquitofish) (IUCLID) 7960 mg/l/96h (fathhead minnow) US-EPA
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 (fathhead minnow) (ECOTOX)

· Bacterial toxicity:

sulfates toxic > 2.5 g/l

CAS: 7681-38-1 sodium bisulfate	
EC10	>1000 mg/l (Pseudomonas putida) (16 h)
CAS: 7757-82-6 sodium sulphate	
EC10	>1000 mg/l (Pseudomonas putida) (16h) (IUCLID)
CAS: 124-04-9 adipic acid	
EC50	92 mg/l (Pseudomonas putida) (DIN 38412) (IUCLID)

· Other information:

Toxic for fish:
Sulfates > 7 g/l

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· Persistence and degradability	
· CAS: 124-04-9 adipic acid	
OECD 301 B	100 % / 28 d (readily biodegradable) (CO2 Evolution Test)
· 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)
· Mobility in soil No further relevant information available.	
· Other adverse effects	
Forms corrosive mixtures with water even if diluted.	
Harmful effect due to pH shift.	
Avoid transfer into the environment.	

13 Disposal considerations

· Waste treatment methods	
· Recommendation:	
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.	
Hand over to hazardous waste disposers.	
· Uncleaned packagings:	
· Recommendation: Disposal must be made according to official regulations.	
· Recommended cleansing agent: Water, if necessary with cleansing agents.	

* 14 Transport information

· UN-Number	
· DOT, IMDG, IATA	none
· UN proper shipping name	
· DOT, IMDG, IATA	none
· Transport hazard class(es)	
· DOT, IMDG, IATA	
· Class	none
· Packing group	
· DOT, IMDG, IATA	none
· Environmental hazards:	
	Not applicable.
· Special precautions for user	
	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable.
· Transport/Additional information:	
	Not dangerous according to the above specifications.

* 15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture	
· Sara	
· Section 355 (Extremely hazardous substances):	
None of the ingredients is listed.	
· Section 313 (Specific toxic chemical listings):	
None of the ingredients is listed.	
· TSCA (Toxic Substances Control Act):	
All components have the value ACTIVE.	

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· Hazardous Air Pollutants		
CAS: 28300-74-5	potassium antimony(III) oxide tartrate trihydrate	
· Proposition 65		
· Chemicals known to cause cancer:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
· New Jersey Right-to-Know List:		
CAS: 124-04-9	adipic acid	
CAS: 28300-74-5	potassium antimony(III) oxide tartrate trihydrate	
· New Jersey Special Hazardous Substance List:		
None of the ingredients is listed.		
· Pennsylvania Right-to-Know List:		
CAS: 7757-82-6	sodium sulphate	
CAS: 124-04-9	adipic acid	
CAS: 28300-74-5	potassium antimony(III) oxide tartrate trihydrate	
· Pennsylvania Special Hazardous Substance List:		
CAS: 7757-82-6	sodium sulphate	E
CAS: 124-04-9	adipic acid	E
CAS: 28300-74-5	potassium antimony(III) oxide tartrate trihydrate	E
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· Information about limitation of use: Not required.		
· Chemical safety assessment: A Chemical Safety Assessment has not been 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

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

· **Version number / date of revision:** 7 / 04/23/2024

· 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

ACGIH® - American Conference of Governmental Industrial Hygienists

•A1 - Confirmed human carcinogen

•A2 - Suspected human carcinogen

•A3 - Confirmed animal carcinogen with unknown relevance to humans

•A4 - Not classifiable as a human carcinogen

•A5 - Not suspected as a human carcinogen

IARC - International Agency for Research on Cancer

•Group 1 - Carcinogenic to humans

•Group 2A - Probably carcinogenic to humans

•Group 2B - Possibly carcinogenic to humans

•Group 3 - Not classifiable as to carcinogenicity to humans

•Group 4 - Probably not carcinogenic to humans

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NTP - National Toxicology Program, U.S. Department of Health and Human Services

•Group K - Known to be Human Carcinogens

•Group R - Reasonably Anticipated to be Human Carcinogens

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

• 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.

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