

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

Printing date 08/07/2023

Reviewed on 08/07/2023

1 Identification

- **Product identifier**
- **Trade name: Nitrate MR F10**
- **Catalogue number:** 00530849, 530840
- **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**



Sensitization - Skin 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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



- **Signal word** Warning
- **Hazard-determining components of labeling:**
sulphanilic acid
- **Hazard statements**
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P280 Wear protective gloves.
P273 Avoid release to the environment.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P302+P352 If on skin: Wash with plenty of water.
- **Other hazards** No further relevant information available.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of organic and inorganic compounds

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Composition and Information on Ingredients:

Percent ranges are used due to the confidential product information.

CAS: 490-79-9 EINECS: 207-718-5 RTECS: LY 3850000	2,5-Dihydroxybenzoic acid ⚠ Acute Toxicity - Oral 4, H302	10–20%
CAS: 7440-66-6 EINECS: 231-175-3 Index number: 030-001-01-9 RTECS: ZG8600000	zinc powder - zinc dust (stabilized) ⚠ Aquatic Acute 1, H400 (M=1); Aquatic Chronic 1, H410 (M=1)	0.25–<2.5%
CAS: 121-57-3 EINECS: 204-482-5 Index number: 612-014-00-X RTECS: WP 3895500	sulphanilic acid ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317	1–≤2.5%

· **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 rinse with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

· After eye contact:

Rinse opened eye for several minutes (at least 15 min) under running water. If symptoms persist, consult a doctor.

· After swallowing:

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

Seek medical treatment in case of complaints.

· Most important symptoms and effects, both acute and delayed

allergic reactions

irritations

after resorption:

gastric or intestinal disorders

sickness

abdominal pain

diarrhoea

general feeling of sickness

cardiovascular disorders

· **Danger:** risk of skin sensitization

· **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:

Nitrogen oxides (NO_x)

Phosphorus oxides (P_xO_x)

Sulfur oxides (SO_x)

Zinc oxide

Potassium oxide

Carbon monoxide (CO) and carbon dioxide (CO₂)

· 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.

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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.
Inform respective authorities in case of seepage into water course or sewage system.
- **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:** Prevent formation of dust.
- **Hygiene measures:**
Avoid contact with the skin.
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 flammable substances.
Store away from oxidizing agents.
store away from water
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
Protect from exposure to the light.
Store in dry conditions.
Protect from humidity and water.
- **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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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:** Combination filter B-P2

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- **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)
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Safety glasses
use against the effects of fumes / dust
Use protective goggles that have been tested and approved in accordance with government standards (like NIOSH).
- **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:** Powder
- **Color:** Grey
- **Odor:** Odorless
- **Odor threshold:** Not applicable.
- **pH-value (30 g/l) at 20°C (68°F):** 3.2
- **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.
- **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 (solid).
- **Density at 20°C (68°F):** ~ 2.21 g/cm³ (~ 18.44 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility(ies)**
- **Water:** Partially insoluble.
- **Partition coefficient (n-octanol/water):** Not applicable (mixture).
- **Viscosity:**
- **Kinematic:** Not applicable (solid).
- **Other information**
- **Solids content:** 100 %

10 Stability and reactivity

- **Reactivity** see section "Possibility of hazardous reactions"
- **Chemical stability** Stable at ambient temperature (room temperature).
- **Possibility of hazardous reactions**
Reacts with acids, alkalis and oxidizing agents.
Reacts with peroxides.
Reacts with halogenated compounds.
Reacts with humid air.

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- **Conditions to avoid**
Heating (decomposition)
Exposure to moisture.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
hydrogen
In case of fire: see section 5.

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: 490-79-9 2,5-Dihydroxybenzoic acid		
Oral	LD50	800 mg/kg (rat) (Merck)
CAS: 7440-66-6 zinc powder - zinc dust (stabilized)		
Oral	LD50	>2000 mg/kg (rat) (Registrant, Echa: limit test, no mortality observed)
CAS: 121-57-3 sulphanilic acid		
Oral	LD50	12300 mg/kg (rat) (IUCLID)

- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.

· Information on components:

CAS: 121-57-3 sulphanilic acid		
Irritation of skin	OECD 404	(rabbit: slight irritation) (IUCLID)
Irritation of eyes	OECD 405	(rabbit: irritation) (IUCLID)

- **Sensitization:** May cause an allergic skin reaction.

· Information on components:

CAS: 121-57-3 sulphanilic acid		
Sensitization	OECD 406	(guinea pig: positive)

· 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.
- **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:

CAS 7440-66-6: Did not show teratogenic effects in animal experients (IUCLID).

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CAS 7440-66-6: Did not show carcinogenic effects in animal experiments (IUCLID).

CAS 7440-66-6: No impairment of reproductive performance in animal experiments (IUCLID).

CAS: 121-57-3 sulphanilic acid

OECD 471	(negative) (NTP, Salmonella typhimurium)
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Additional toxicological information:

The following applies to aromatic amines in general: systemic effect - methaemoglobinaemia with headache, cardia dysrhythmia, drop in blood pressure, dyspnoea, spasm,
principal symptom: cyanosis (blue discoloration of the blood)

12 Ecological information

Toxicity**Aquatic toxicity:****CAS: 7440-66-6 zinc powder - zinc dust (stabilized)**

LC50	0.068 mg/l/48h (Daphnia magna)
EC50	0.356 mg/l/48h (Daphnia magna) (Merck)
NOEC	0.169 mg/l/96h (fish) (30d) (Registrant, ECHA: Cottus bairdii)
NOEC	0.0727 mg/l (Daphnia magna) (21 d) (Merck)
EC50	0.106 mg/l/72h (Pseudokirchneriella subcapitata) (Merck)
LC50	0.238–0.269 mg/l/96h (fathhead minnow) (Merck)

CAS: 121-57-3 sulphanilic acid

EC50	85.7 mg/l/48h (Daphnia magna) (IUCLID)
IC50	91 mg/l/72h (Desmodesmus subspicatus) (IUCLID)
LC50	100.4 mg/l/96h (fathhead minnow) (IUCLID)

Other information:

Toxic for fish:
Zn > 0.1 mg/l

Persistence and degradability**CAS: 121-57-3 sulphanilic acid**

OECD 301 B	31 % / 28 d (not readily biodegradable) (CO2 Evolution Test)
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Bioaccumulative potential**CAS: 490-79-9 2,5-Dihydroxybenzoic acid**

log Pow	1.74 (.) (experimental)
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CAS: 121-57-3 sulphanilic acid

log Pow	-2.298 (.)
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Mobility in soil No further relevant information available.

Other adverse effects

Avoid transfer into the environment.

Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of water supplies.

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.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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):	
CAS: 7440-66-6	zinc powder - zinc dust (stabilized)
· TSCA (Toxic Substances Control Act):	
All components have the value ACTIVE.	
· Hazardous Air Pollutants	
None of the ingredients is listed.	
· 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: 7440-66-6	zinc powder - zinc dust (stabilized)
· New Jersey Special Hazardous Substance List:	
CAS: 7440-66-6	zinc powder - zinc dust (stabilized) F3, R1
· Pennsylvania Right-to-Know List:	
CAS: 7440-66-6	zinc powder - zinc dust (stabilized)
· Pennsylvania Special Hazardous Substance List:	
CAS: 7440-66-6	zinc powder - zinc dust (stabilized) E

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· EPA (Environmental Protection Agency)	
CAS: 7440-66-6 zinc powder - zinc dust (stabilized)	D, I, II
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	

· Information about limitation of use:

Observe national regulations where applicable:
Employment restrictions concerning young persons must be observed.

· 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

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

· Version number / date of revision: 1 / 08/07/2023

· 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
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
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
Sensitization - Skin 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· Sources

Data arise from safety data sheets, reference works and literature.
ECHA: European CHemicals Agency <http://echa.europa.eu>
IUCLID (International Uniform Chemical Information Database)