

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

Printing date 01/15/2020

Reviewed on 01/15/2020

#### 1 Identification

- **Product identifier**
- **Trade name: Sulfide No.2**
- **Catalogue number:** 00512941, 00502940, 502940
- **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**



GHS08 Health hazard

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Muta. 1B H340 May cause genetic defects.  
Carc. 1B H350 May cause cancer.  
Repr. 1B H360 May damage fertility or the unborn child.



GHS05 Corrosion

- Eye Dam. 1 H318 Causes serious eye damage.



GHS07

- Skin Sens. 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**



GHS05



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
sodium bisulfate  
boric acid  
potassium dichromate  
potassium chromate

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**Hazard statements**

- H318 Causes serious eye damage.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H360 May damage fertility or the unborn child.
- H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

- P201 Obtain special instructions before use.
- P280 Wear protective gloves/protective clothing/eye protection.
- P302+P352 If on skin: Wash with plenty of 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.
- P308+P310 IF exposed or concerned: Immediately call a poison center/doctor.
- P405 Store locked up.

• **Other hazards** No further relevant information available.

### \* 3 Composition/information on ingredients

• **Chemical characterization: Mixtures**

• **Description:** Mixture: consisting of the following hazardous components.

• **Composition and Information on Ingredients:**

The percent content of the chromium compound mentioned below refers to the amount of the chromate ions dissolved in water. 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 Dam. 1, H318	60–70%
CAS: 10043-35-3 EINECS: 233-139-2 Index number: 005-007-00-2 RTECS: ED 4550000	boric acid ☞ Repr. 1B, H360	10–20%
CAS: 124-04-9 EINECS: 204-673-3 Index number: 607-144-00-9 RTECS: AU 8400000	adipic acid ☞ Eye Irrit. 2A, H319	10–20%
CAS: 7778-50-9 EINECS: 231-906-6 Index number: 024-002-00-6 RTECS: HX 7680000	potassium dichromate ☞ Ox. Sol. 2, H272; ☞ Acute Tox. 3, H301; Acute Tox. 2, H330; ☞ Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360; STOT RE 1, H372; ☞ Skin Corr. 1B, H314; ☞ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ☞ Acute Tox. 4, H312; Skin Sens. 1, H317	0.1–<0.25%
CAS: 7789-00-6 EINECS: 232-140-5 Index number: 024-006-00-8 RTECS: GB 2940000	potassium chromate ☞ Muta. 1B, H340; Carc. 1B, H350; ☞ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); ☞ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	0.1–<0.25%

• **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.
- Seek medical treatment.

• **After skin contact:**

- Immediately wash with water and soap and rinse thoroughly.
- Seek medical treatment.

• **After eye contact:**

- Rinse opened eye for several minutes (at least 15 min) under running water.
- Call a doctor immediately.

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- **After swallowing:**  
Rinse out mouth and then drink 1-2 glasses of water.  
Call a doctor immediately.
- **Most important symptoms and effects, both acute and delayed**  
irritations  
allergic reactions  
after inhalation:  
mucosal irritations, cough, breathing difficulty  
after swallowing:  
resorption  
sickness  
vomiting  
after absorption of large amounts:  
breathing difficulty  
drop in temperature  
CNS disorders  
fatigue  
ataxia (impaired locomotor coordination)  
cardiovascular disorders
- **Danger:**  
Danger of circulatory collapse.  
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:  
Nitrogen oxides (NO<sub>x</sub>)  
Sulfur oxides (SO<sub>x</sub>)  
chromium oxides  
Sodium oxide
- **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.  
Avoid substance contact.  
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 item 13.
- **Reference to other sections**  
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

### 7 Handling and storage

- **Precautions for safe handling**
- **Advice on safe handling:** Provide suction extractors if dust is formed.
- **Hygiene measures:**
  - Do not inhale dust / smoke / mist.
  - Do not get in eyes, on skin, or on clothing.
  - Take off immediately all contaminated clothing.
  - Store protective clothing separately.
  - 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**
- **Storage:**
- **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.
- **Further information about storage conditions:**
  - Store under lock and key and with access restricted to technical experts or their assistants only.
  - Store in cool, dry conditions in well sealed receptacles.
  - Protect from heat and direct sunlight.
  - 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.

<b>CAS: 10043-35-3 boric acid</b>	
TLV (USA)	Short-term value: 6* mg/m <sup>3</sup> Long-term value: 2* mg/m <sup>3</sup> *as inhalable fraction
EL (Canada)	Short-term value: 6 mg/m <sup>3</sup> Long-term value: 2 mg/m <sup>3</sup>
EV (Canada)	Short-term value: 6 mg/m <sup>3</sup> Long-term value: 2 mg/m <sup>3</sup> inorganic, inhalable
<b>CAS: 124-04-9 adipic acid</b>	
TLV (USA)	Long-term value: 5 mg/m <sup>3</sup>
EL (Canada)	Long-term value: 5 mg/m <sup>3</sup>
EV (Canada)	Long-term value: 5 mg/m <sup>3</sup>
<b>CAS: 7778-50-9 potassium dichromate</b>	
PEL (USA)	Long-term value: 0.005* mg/m <sup>3</sup> Ceiling limit value: 0.1** mg/m <sup>3</sup> *as Cr(VI) **as CrO <sub>3</sub> ; see 29 CFR 1910.1026
REL (USA)	Long-term value: 0.0002 mg/m <sup>3</sup> as Cr; See Pocket Guide Apps. A and C
TLV (USA)	Short-term value: 0.0005 mg/m <sup>3</sup> Long-term value: 0.0002 mg/m <sup>3</sup> as Cr(VI); inhalable, Skin; BEI, DSEN, RSEN
EL (Canada)	Long-term value: 0.025 mg/m <sup>3</sup> Ceiling limit value: 0.1 mg/m <sup>3</sup> as Cr; ACGIH A1, IARC 1; Skin; S(D), S(R)

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<b>CAS: 7789-00-6 potassium chromate</b>	
PEL (USA)	Long-term value: 0.005* mg/m <sup>3</sup> Ceiling limit value: 0.1** mg/m <sup>3</sup> *as Cr(VI) **as CrO <sub>3</sub> ; see 29 CFR 1910.1026
REL (USA)	Long-term value: 0.0002 mg/m <sup>3</sup> as Cr; See Pocket Guide Apps. A and C
TLV (USA)	Short-term value: 0.0005 mg/m <sup>3</sup> Long-term value: 0.0002 mg/m <sup>3</sup> as Cr(VI); inhalable, Skin; BEI, DSEN, RSEN
EL (Canada)	Long-term value: 0.025 mg/m <sup>3</sup> Ceiling limit value: 0.1 mg/m <sup>3</sup> as Cr; ACGIH A1, IARC 1; Skin; S(D), S(R)
<b>· Ingredients with biological limit values:</b>	
<b>CAS: 7778-50-9 potassium dichromate</b>	
BEI (USA)	25 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (fume)
	10 µg/L Medium: urine Time: increase during shift Parameter: Total chromium (fume)
<b>CAS: 7789-00-6 potassium chromate</b>	
BEI (USA)	25 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (fume)
	10 µg/L Medium: urine Time: increase during shift Parameter: Total chromium (fume)

· **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.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Recommended filter device for short term use:** Filter P3

· **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:  $\geq 0.11$  mm

· **Penetration time of glove material**

Value for the permeation: Level  $\leq 1$  (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:** Tightly sealed goggles

· **Body protection:** Protective work clothing

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- **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

· <b>Information on basic physical and chemical properties</b>	
· <b>Appearance:</b>	
Form / Physical state:	Tablets
Color:	White
· <b>Odor:</b> Odorless	
· <b>Odor threshold:</b> Not applicable.	
· <b>pH-value (11.1 g/l) at 20°C (68°F):</b> 1.7	
· <b>Melting point/freezing point:</b> Not determined.	
· <b>Initial boiling point and boiling range:</b> Not determined.	
· <b>Flash point:</b> Not applicable.	
· <b>Flammability (solid, gas):</b> The product is not combustible.	
· <b>Decomposition temperature:</b> Not determined.	
· <b>Auto-ignition temperature:</b> Product is not self-igniting.	
· <b>Danger of explosion:</b> Product does not present an explosion hazard.	
· <b>Flammability or explosive limits:</b>	
Lower:	Not applicable.
Upper:	Not applicable.
· <b>Oxidizing properties:</b> none	
· <b>Vapor Pressure:</b> Not applicable.	
· <b>Density at 20°C (68°F):</b> 1.9 g/cm <sup>3</sup> (15.86 lbs/gal)	
· <b>Relative density:</b> Not determined.	
· <b>Vapor density:</b> Not applicable.	
· <b>Evaporation rate:</b> Not applicable.	
· <b>Solubility(ies)</b>	
Water:	Soluble.
· <b>Partition coefficient (n-octanol/water):</b> Not applicable.	
· <b>Viscosity:</b> Not applicable.	
· <b>Solvent content:</b>	
Solids content:	100 %
· <b>Other information</b> No further relevant information available.	

### 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** To avoid thermal decomposition do not overheat.
- **Incompatible materials:**  
metals  
steel  
Iron  
organic substances

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· **Hazardous decomposition products:** see section 5

### 11 Toxicological information

· **Information on toxicological effects**

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

· **Acute toxicity estimate (ATE<sub>(MX)</sub>) - Calculation method:**

Oral	GHS ATE <sub>(MX)</sub>	2817 mg/kg (.)
Inhalative	GHS ATE <sub>(MX)</sub>	62 mg/l/4h (dust)

· **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: 10043-35-3 boric acid**

Oral	LD50	2660 mg/kg (rat) (OECD 401) (GESTIS, ECHA registrant)
Dermal	LD50.	>2000 mg/kg (rat) (ECHA, registrant: no deaths occurred.)
	LD <sub>0</sub>	1500 mg/kg (child) (MERCK)
Inhalative	LC50.	>2.03 mg/l/4h (rat) (OECD 403, aerosol) (ECHA, registrant: no deaths occurred)
	NOAEL	9.6 mg/kg (rat) (NTP)

**CAS: 124-04-9 adipic acid**

Oral	LD50	5700 mg/kg (rat) (MERCK)
Dermal	LD50	>7940 mg/kg (rabbit) (Registrant, ECHA: no deaths occurred)
Inhalative	LC50.	>7.7 mg/l/4h (rat) (dust, aerosol) (Registrant, ECHA: no deaths occurred)

**CAS: 7778-50-9 potassium dichromate**

Oral	LD50	90.5 mg/kg (rat) (OECD 401) (ECHA, registrant: LD50 = 90.5 mg/kg female to 168.0 mg/kg male)
	LDLo	26 mg/kg (child) 143 mg/kg (man)
Dermal	LD50	1170 mg/kg (rat) (IUCLID)
Inhalative	LC50	0.094 mg/l/4h (rat) (OECD 403, Aerosol)
	LD50 IPR	28 mg/kg (rat)

**CAS: 7789-00-6 potassium chromate**

Oral	LD50.	180 mg/kg (mouse)
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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)
Irritation of eyes	OECD 405	(rabbit: severe irritations)

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CAS: 10043-35-3 boric acid		
Irritation of skin	OECD 404	(rabbit: no irritation) (Registrant, ECHA)
Irritation of eyes	OECD 405	(rabbit: slight irritation) (IUCLID)
CAS: 124-04-9 adipic acid		
Irritation of skin	OECD 404	(rabbit: no irritation)
Irritation of eyes	OECD 405	(rabbit: severe irritations)
CAS: 7778-50-9 potassium dichromate		
Irritation of skin	OECD 404	(rabbit: irritation)

- **Sensitization:**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.

- **Information on components:**

CAS: 10043-35-3 boric acid		
Sensitization	OECD 406	(guinea pig: negative)
CAS: 124-04-9 adipic acid		
Sensitization	OECD 406	(guinea pig: negative) (IUCLID)
CAS: 7778-50-9 potassium dichromate		
Sensitization	Patch test (human)	(positive) (IUCLID)

- **Carcinogenic categories**

• <b>IARC (International Agency for Research on Cancer)</b>		
CAS: 7778-50-9	potassium dichromate	1
CAS: 7789-00-6	potassium chromate	1
• <b>NTP (National Toxicology Program)</b>		
CAS: 7778-50-9	potassium dichromate	K
CAS: 7789-00-6	potassium chromate	K
• <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
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:

Muta. 1B, Carc. 1B, Repr. 1B

- **Germ cell mutagenicity** May cause genetic defects.

- **Carcinogenicity** May cause cancer.

- **Reproductive toxicity** May damage fertility or the unborn child.

- **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 10043-35-3: evaluation for carcinogenicity: negative in animals (NTP)

OECD 414: Teratogenicity testing

OECD 473: Mutagenicity testing

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

CAS: 10043-35-3 boric acid	
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test)
OECD 476	(negative) (In Vitro Mammalian Cell Gene Mutation Test) (mouse lymphomea test)
OECD 414	(negative) (oral, rat) (ECHA, registrant: no evidence of developmental toxicity up to 55 mg/kg bw. At 76 mg/kg bw there was reduced fetal bodyweight, short and wavy ribs, and these effects disappeared during the postnatal period.)
OECD 474	(negative) (in vivo, mice)

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

OECD 474 (negative) (Mammalian Erythrocyte Micronucleus Test)

**Additional toxicological information:**

Inhalable chromium (VI) compounds have clearly shown themselves to be carcinogenic in animal experiments.

Poor tendency for ulcers to heal following penetration of substance into the wound.

Lethal dose (man): 0.5 g

Antidotes: chelating agents such as EDTA, DMPS

CAS 10043-35-5: Absorption through gastro-intestinal tract, mucous membranes

Boric acid / Borate may cause developmental changes based on published data, at doses many times in excess of those that could occur through inhalation of dust in occupational settings.

**Experience with humans:**

CAS 7778-50-9, 7789-00-6: Can cause liver damage.

CAS 7778-50-9: Can cause kidney damages.

CAS 7778-50-9: May cause lung damages.

CAS 778-50-9: Can cause cardiac damages.

**12 Ecological information****Toxicity****Aquatic toxicity:****CAS: 7681-38-1 sodium bisulfate**EC50 190 mg/l/48h (Daphnia magna)  
(IUCLID)**CAS: 10043-35-3 boric acid**EC50 133 mg/l/48h (Daphnia magna)  
(ECOTOX)LC50 50–100 mg/l/96h (rainbow trout)  
(ECOTOX)**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)**CAS: 7778-50-9 potassium dichromate**EC50 0.62 mg/l/48h (Daphnia magna) (OECD 202)  
(Merck)

NOEC 0.016–0.064 mg/l (Daphnia magna) (7d)

6 mg/l (fathead minnow) (7d)

IC50 0.16–0.59 mg/l/96 h (Chlorella vulgaris)  
(IUCLID)

EC50 0.31 mg/l/72 h (Desmodesmus subspicatus)

LC50 58.5 mg/l/96h (byr)

0.131 mg/l/96h (bluegill)

160 mg/l/96h (guppy)

26.13 mg/l/96h (fathead minnow)

(Merck/IUCLID)

**CAS: 7789-00-6 potassium chromate**EC50 0.02 mg/l/48h (Daphnia magna)  
(Ecotox)

0.18 mg/l/48h (Daphnia pulex)

LC50 39.8 mg/l/96h (fathead minnow)  
(ECOTOX)

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· <b>Bacterial toxicity:</b>	
<b>CAS: 7681-38-1 sodium bisulfate</b>	
EC10	>1000 mg/l (Pseudomonas putida) (16 h)
<b>CAS: 124-04-9 adipic acid</b>	
EC50	92 mg/l (Pseudomonas putida) (DIN 38412) (IUCLID)
<b>CAS: 7778-50-9 potassium dichromate</b>	
EC50	58 mg/l (Photobacterium phosphoreum) (30 min; Microtox-Test)
· <b>Other information:</b>	
Toxic for fish: sulfates > 7 g/l	
· <b>Persistence and degradability</b>	
<b>CAS: 124-04-9 adipic acid</b>	
OECD 301 B	100 % / 28 d (readily biodegradable) (CO2 Evolution Test)
· <b>Bioaccumulative potential</b>	
BCF = Bioconcentration factor Pow = n-octanol/wasser partition coefficient log Pow < 1 = Does not accumulate in organisms.	
<b>CAS: 10043-35-3 boric acid</b>	
log Pow	-1.09 (.) (OECD 107, 22°C) (Merck)
<b>CAS: 124-04-9 adipic acid</b>	
log Pow	0.081 (.) (25°C, OECD 107)
<b>CAS: 7778-50-9 potassium dichromate</b>	
BCF	17.4 (rainbow trout)
· <b>Mobility in soil</b> No further relevant information available.	
· <b>Other adverse effects</b> 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

· <b>UN-Number</b>	
· <b>DOT, IMDG, IATA</b>	none
· <b>UN proper shipping name</b>	
· <b>DOT, IMDG, IATA</b>	none
· <b>Transport hazard class(es)</b>	
· <b>DOT, IMDG, IATA</b>	
· <b>Class</b>	none
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	none
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Not applicable.

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US

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 01/15/2020

Reviewed on 01/15/2020

Trade name: **Sulfide No.2**

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• **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):**

This mixture contains Chromic acid, dipotassium salt [listed as \*\*undefined\*\* - Cr(VI)] which is subject to the reporting requirements of Section 313 SARA Title III and 40 CFR Part 372.

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

• **Hazardous Air Pollutants**

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **Proposition 65**

• **Chemicals known to cause cancer:**

Chromium (hexavalent) compounds are listed in California Proposition 65 as carcinogens.

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **Chemicals known to cause reproductive toxicity for females:**

Chromium (hexavalent) compounds are listed in California Proposition 65 as toxic to reproduction for females.

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **Chemicals known to cause reproductive toxicity for males:**

Chromium (hexavalent) compounds are listed in California Proposition 65 as toxic to reproduction for males.

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **Chemicals known to cause developmental toxicity:**

Chromium (hexavalent) compounds are listed in California Proposition 65 as toxic to development.

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **New Jersey Right-to-Know List:**

CAS: 124-04-9 | adipic acid

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **New Jersey Special Hazardous Substance List:**

CAS: 7778-50-9 | potassium dichromate

CA, MU

CAS: 7789-00-6 | potassium chromate

CA, MU

• **Pennsylvania Right-to-Know List:**

CAS: 124-04-9 | adipic acid

CAS: 7778-50-9 | potassium dichromate

CAS: 7789-00-6 | potassium chromate

• **Pennsylvania Special Hazardous Substance List:**

CAS: 124-04-9 | adipic acid

E

CAS: 7778-50-9 | potassium dichromate

E

CAS: 7789-00-6 | potassium chromate

E

(Contd. on page 12)

US

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 01/15/2020

Reviewed on 01/15/2020

Trade name: **Sulfide No.2**

(Contd. of page 11)

EPA (Environmental Protection Agency)		
CAS: 10043-35-3	boric acid	I (oral)
CAS: 7778-50-9	potassium dichromate	A(inh), D(oral), K/L(inh), CBD(oral)
CAS: 7789-00-6	potassium chromate	A(inh), D(oral), K/L(inh), CBD(oral)

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Chromium, hexavalent [Cr(VI)]

CAS: 7778-50-9	potassium dichromate
CAS: 7789-00-6	potassium chromate

• **Information about limitation of use:**

Employment restrictions concerning pregnant and lactating women must be observed.  
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**

H272 May intensify fire; oxidizer.  
H301 Toxic if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H340 May cause genetic defects.  
H350 May cause cancer.  
H360 May damage fertility or the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

• **Recommended restriction of use:** professional/industrial use only

• **Date of preparation / last revision** 01/15/2020 / 32

• **Abbreviations and acronyms:**

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

EC50: effective concentration, 50 percent (in vivo)

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

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# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 01/15/2020

Reviewed on 01/15/2020

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**Trade name: Sulfide No.2**


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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  
 BEI: Biological Exposure Limit  
 Ox. Sol. 2: Oxidizing solids – Category 2  
 Acute Tox. 3: Acute toxicity – Category 3  
 Acute Tox. 4: Acute toxicity – Category 4  
 Acute Tox. 2: Acute toxicity – Category 2  
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
 Resp. Sens. 1: Respiratory sensitisation – Category 1  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Muta. 1B: Germ cell mutagenicity – Category 1B  
 Carc. 1B: Carcinogenicity – Category 1B  
 Repr. 1B: Reproductive toxicity – Category 1B  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
 STOT RE 1: Specific target organ toxicity (repeated exposure) – 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>  
 ECOTOX Database  
 IUCLID (International Uniform Chemical Information Database)  
 GESTIS- Stoffdatenbank (Substance Database, Germany)  
 NTP (National Toxicology Program)

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

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