



analisi e sviluppo
sistemi cibernetici

Sede Legale/Operativa: Via degli Artigiani 6 - 50055 GINESTRA FIORENTINA (FI) - Tel. +39 055 871431 Fax. +39 055 8714322

MATERIAL SAFETY DATA SHEET
SULFATE TEST KIT on WATER

Revision: 0
of 22/03/2017

Date of compilation: 22/03/2017

In accordance with Regulation (EC) 1907/2006 and Regulation (EU) 830/2015

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier: **SULFATE on WATER**

1.2. Relevant identified uses of the substance or mixture and uses advised against:
Reagent for water testing

1.3. Details of the supplier of the safety data sheet:

CDR S.r.l.

Via degli Artigiani, 6

50055 Ginestra F.na (FI)

Italy

Phone: +39 055-871431

Fax: +39 055-8714322

1.4. Emergency telephone number: **+39 055-871431** (call during office hours)
e-mail TC: acquisti@cdr-mediated.it

2. Hazards identification

2.1 Classification of the substance or mixture

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

Acute toxicity – oral (Category 4)

Acute toxicity –inhalation (Category 4)

Hazard statement Code(s):

H302+H332 - Harmful if swallowed or if inhaled

2.2. Label elements:

Pictogram, Signal Word Code(s):

Warning



Hazard statement Code(s):

H302+H332 - Harmful if swallowed or if inhaled

Precautionary statements:

Prevention

P261 - Avoid breathing vapours/spray.

Response

P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER/doctor/.../if you feel unwell.

P330 - Rinse mouth.

Contains:

Barium chloride (BaCl₂), dehydrate

2.3 Other hazards:

Product: **SULFATE**

The mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

3. Composition/Information on ingredients

3.2. *Mixtures*

Chemical composition:

Name	Concentration (C)	Classification
		Regulation CE/1272/2008
Barium chloride (BaCl ₂), dihydrate	6 < C < 9	Acute Tox. 3 H301
Cas No 10326-27-9		Acute Tox. 4 H332
CE No 233-788-1		
Index No 056-004-00-8		

The full text of hazard statements (H) is specified in section 16.

4. First-aid measures

4.1 *Description of first aid measures*

General recommendations

Always change contaminated clothing.

Inhalation

Remove the victim from contaminated area and keep him in a well ventilated and comfortable place. Seek immediately medical advice.

Skin contact

Remove contaminated clothing. Wash with plenty of water and soap. In case of irritation, seek medical attention. Wash contaminated clothing before using them.

Eyes contact

Irrigate copiously with clean, fresh water for at least 15 minutes, keeping opened eyes. Seek medical attention.

Ingestion

Rinse immediately mouth with water. Obtain medical attention. Don't induce vomiting. Never give anything by mouth to an unconscious person and if it is not indicated by the doctor.

4.2. *Most important symptoms and effects, both acute and delayed*

not available

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

not available

5. Fire-fighting measures

5.1 *Extinguishing media*

Advised extinguishing agents:

CO₂, foam, chemical powder, nebulized water.

Unappropriate extinction methods:

Product: **SULFATE**

none

5.2. Special hazards arising from the substance or mixture

The product under fire condition may develop irritant/toxic gas (CO_x, HCl, oxides of Barium).

5.3. Advice for firefighters

Wear the fire equipment all the time. Water used in fire-fighting has to be disposed following Local regulation

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. In case of formation of vapours use suitable protective devices. Supply a good air circulation. Move away any unauthorised person.

6.2. Environmental precautions

Collect the product in suitable container for disposal. Notify authorities if product enters sewer or public waters.

6.3. Methods and material for containment and cleaning up

Collect the spillage with inert material .Wash the residues with water avoiding the drainage into Civil sewers.

6.4 Reference to other sections

Refer to paragraphs 8 and 13 for more information.

7. Handling and storage

7.1. Precautions for safe handling

Follow the good industrial hygiene and safety procedures. Do not smoke, drink or eat during handling. Work in well ventilated areas.

7.2. Conditions for safe storage, including any incompatibilities

Store the packaging closed in a fresh and ventilated area, far from sources of ignition. Store at room temperature.

7.3. Specific end use(s)

For particular uses of the product, is necessary to refer to the specific information or contact the technical service of the Company.

8. Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

Avoid contact with the eyes and skin wearing suitable protective devices; store the container sealed when not being used. Do not eat, drink or smoke while handling it. Accurately wash the hands with soap and water before meals.

Individual protection

The DPI's choice must be done on the basis of the test's results obtained according to the rule EN 374

Product: **SULFATE**

Hand protection: : protective gloves of nitrile. Penetration time of glove material: the exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection : protective goggles

Skin protection : suitable protective clothing

Respiratory protection : mask with filter (Type ABEK)

9. Physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	liquid	
Odour	characteristic	
Odour threshold	not available	
pH	not available	
Melting point/freezing point	not available	
Initial boiling point and boiling range	not available	
Flash point	not available	
Evaporation rate	not available	
Flammability (solid, gas)	not pertinent	
Upper/lower flammability or explosive limits	not pertinent	
Vapour pressure	not available	
Vapour density	not available	
Relative density	not available	
Solubility	not available	
Water solubility	not available	
Partition coefficient: n-octanol/water	not available	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
Viscosity	not available	
Explosive properties	not available	
Oxidising properties	not available	

9.2. Other information

VOC (Directive 1999/13/CE): -%

10. Stability and reactivity

10.1. Reactivity

The product is stable in normal conditions of use and storage.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

In addition to that specifically mentioned, we have no further information..

10.4. Conditions to avoid

Not available

10.5. Incompatible materials

Product: **SULFATE**

Barium chloride (BaCl₂), dihydrate: Incompatible with acids, Barium oxide, hydrochloric acid.

10.6. Hazardous decomposition products

Due to thermal decomposition or in the event of a fire vapours may be produced potentially dangerous to health (CO_x, HCl, oxides of Barium).

11. Toxicological information

11.1. Information on toxicological effects

ATE oral = 1.387,0 mg/kg

ATE inhal = 16,6 mg/l/4 h

Acute effects:

- (a) acute toxicity: Harmful product: do not ingest or inhale
- (b) skin corrosion/irritation based on available data, the classification criteria are not met.
- (c) serious eye damage/irritation: based on available data, the classification criteria are not met.
- (d) respiratory or skin sensitization: based on available data, the classification criteria are not met.
- (e) germ cell mutagenicity: based on available data, the classification criteria are not met.
- (f) carcinogenicity: based on available data, the classification criteria are not met.
- (g) reproductive toxicity: based on available data, the classification criteria are not met.
- (h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
- (i) specific target organ toxicity (STOT) repeated exposure based on available data, the classification criteria are not met.
- (j) aspiration hazard: based on available data, the classification criteria are not met.

Barium chloride (BaCl₂), dihydrate:

LD50 of Ba²⁺: >66 mg/kg bw and <198 mg/kg bw.

LC50: > 1.1 mg/l air (inhalation, rat)

12. Ecological information

12.1. Toxicity:

Use this product according to good working practices. Avoid litter. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation

Barium chloride (BaCl₂), dihydrate:

LC50: > 3.5 mg/l/96h (Danio Rerio)

NOEC: >= 100 mg/l/33 giorni (Danio Rerio)

LC50: 14 500 µg/l/48h (Daphnia magna)

12.2. Persistence and degradability: not available

12.3. Bioaccumulative potential: not available

12.4. Mobility in soil: not available

12.5. Results of PBT and vPvB assessment:

Barium chloride (BaCl₂), dihydrate: Barium chloride is an inorganic substance, so a PBT and vPvB is not required

Product: **SULFATE**

12.6. Other adverse effects: not available

This product doesn't contain AOX

13. Disposal considerations

Operate following the current Local or National Laws.
The non reclaimed containers have to be disposed as the product.
Consider the possibility of burning the product in a suitable incenerator.

14. Transport information

14.1. UN number

Not included in the scope of application regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

14.2. UN proper shipping name

None

14.3. Transport hazard class(es)

None

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

No data available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk

15. Regulatory information

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

Regulation	CAS	Substance
Reg. (EC) 428/2009 ex CE 1334/2000 Ann.1	-	-
Reg. (EC) 273/04 Tab.1 Cat.1	-	-
Reg. (EU) 1258/2013 ex Reg. (EC) 273/04 Tab.1 Cat.2	-	-
Reg. (EC) 273/04 Tab.1 Cat.3	-	-
Reg. (EC) 1907/2006 Ann. XIV	-	-
Reg. (EC) 1907/2006 Substances SVHC	-	-
Reg. (EC) 1907/2006 Ann. XVII	-	Mixture (Entry 3)
Directive 2012/18/UE Ann.1 part 1	-	-
Directive 2012/18/UE Ann.1 part 2	-	-

15.2. Chemical safety assessment

Product: **SULFATE**

There is'nt a chemical Safety Assessment for the mixture and for substances contained.

16. Further information

Description of the sentences of risk set out in paragraph 3

H301 = Toxic if swallowed.

H332 = Harmful if inhaled.

Classification based on data of all components of the mixture

GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP) and its amendments and adjustments
3. Regulation (EC) 790 / 2009
4. Regulation (EU) 453/2010
5. Regulation (EU) 830/2015
6. The Merck Index. Ed 10
7. Handling Chemical Safety
8. NIOSH - Registry of Toxic Effects of Chemical Substances
9. INRS - Fiche Toxicologique
10. Patty - Industrial Hygiene and Toxicology
11. NI Sax - Dangerous Properties of Industrial Materials-7, 1989 Edition
12. ADR Directive 2008/68/CE and its amendments and adjustments
13. ECHA Web site <http://echa.europa.eu/web/guest>
14. Directive 2012/18/UE
15. Directive 2009/161/UE

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

LD50 = Lethal Dose 50

CL50 = Lethal concentration 50

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .This document must not be regarded as a guarantee on any specific product property.The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.