

Creation Date 24-Nov-2010 Revision Date 18-Jan-2021 Revision Number 3

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: Drierite®, indicating

Cat No. : 43063 Molecular Formula Ca O4 S REACH registration number

Unique Formula Identifier (UFI) 7CUM-0TYA-4W08-GJ6G

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

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company Thermo Fisher (Kandel) GmbH

Erlenbachweg 2, 76870 Kandel, Germany

Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300

Swiss distributor - Fisher Scientific AG Neuhofstrasse 11, CH 4153 Reinach

Tel: +41 (0) 56 618 41 11 e-mail - infoch@thermofisher.com

E-mail address tech@alfa.com

www.alfa.com

Product safety Tel + +049 (0) 7275 988687-0

1.4. Emergency telephone number

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)

Poison Information Center Mainz www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

Exclusively for customers in Austria: Poison Information Center (VIZ)

Emergency call 0-24 clock: +43 1 406 43 43

Office hours: Monday to Friday, 8am to 4pm, tel: +43 1 406 68 98

For customers in Switzerland:

Tox Info Suisse Emergency Number: 145 (24hr)

Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)

Chemtrec (24h) Toll-Free: 0800 564 402 Chemtrec Local: +41-43 508 20 11 (Zurich)

Poison Centre - Emergency

information services

Ireland: National Poisons Information Centre (NPIC) -

01 809 2166 (8am-10pm, 7 days a week)

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Malta: +356 2395 2000 Cyprus: +357 2240 5611

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Serious Eye Damage/Eye Irritation

Respiratory Sensitization

Skin Sensitization

Category 1 (H334)

Skin Sensitization

Category 1 (H317)

Germ Cell Mutagenicity

Carcinogenicity

Carcinogenicity

Reproductive Toxicity

Category 1B (H350i)

Category 1B (H360F)

Environmental hazards

Chronic aquatic toxicity Category 2 (H411)

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

Hazard Statements

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H341 - Suspected of causing genetic defects

H350i - May cause cancer by inhalation

H360F - May damage fertility

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P201 - Obtain special instructions before use

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P308 + P313 - IF exposed or concerned: Get medical advice/attention

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P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

Additional EU labelling

Restricted to professional users

2.3. Other hazards

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

| Component | CAS No | EC No | Weight % | CLP Classification - Regulation (EC) No 1272/2008 |
|-----------------------------------|-----------|-------------------|----------|---|
| Sulfuric acid, calcium salt (1:1) | 7778-18-9 | EEC No. 231-900-3 | > 95 | - |
| Cobalt chloride (CoCl2) | 7646-79-9 | EEC No. 231-589-4 | < 2 | Acute Tox. 4 (H302) Acute Tox. 4 (H332) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1B (H350i) Repr. 1B (H360F) Aquatic Acute 1 (H400) Aguatic Chronic 1 (H410) |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|-------------------------|---------------------------------------|----------|-----------------|
| Cobalt chloride (CoCl2) | Carc. 1B (H350i) :: C>=0.01% | 10 | - |

| REACH registration number | | | - |
|---------------------------|----------|--------------------|---|
| Components | Reach Re | egistration Number | |
| Calcium sulfate | 01-211 | 9444918-26-0322 | |

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Ingestion Do NOT induce vomiting. Get medical attention.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial

respiration. Get medical attention.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

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May cause allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

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

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Calcium oxides, Sulfur oxides.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate

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medical assistance. Wash hands before breaks and immediately after handling the product.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Storage Class/LGK 6.1D

Switzerland - Storage of hazardous substances

Storage class - SC 6.1 https://www.kvu.ch/de/themen/stoffe-und-produkte https://www.kvu.ch/fr/themes/substances-et-produits

https://www.kvu.ch/fr/themes/substances-et-produ https://www.kvu.ch/it/temi/sostanze-e-prodotti

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **UK** - EH40/2005 Work Exposure Limits, Third edition. Published 2018. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am arbeitplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

| Component | European Union | The United Kingdom | France | Belgium | Spain |
|------------------------|----------------|-------------------------|---------------------------------|----------------------------------|------------------------|
| Sulfuric acid, calcium | | | TWA / VME: 10 mg/m ³ | TWA: 10 mg/m ³ 8 uren | TWA / VLA-ED: 10 |
| salt (1:1) | | | (8 heures). | | mg/m³ (8 horas) |
| Cobalt chloride | | Capable of causing | | | VLA-ED: 0.02 mg/m³ (as |
| (CoCl2) | | cancer and/or heritable | | | Co) |
| | | genetic damage | | | |
| | | TWA: 0.1 mg/m³ (As | | | |
| | | Co) | | | |
| | | STEL: 0.3 mg/m³ (As | | | |
| | | Co) | | | |

| Component | Italy | Germany | Portugal | The Netherlands | Finland |
|--------------------------------------|-------|--|--|-----------------|--|
| Sulfuric acid, calcium salt (1:1) | | TWA: 6 mg/m³ (8 Stunden). AGW - TWA: 1.5 mg/m³ (8 Stunden). MAK TWA: 4 mg/m³ (8 Stunden). MAK | TWA: 10 mg/m ³ 8 horas | | |
| Cobalt chloride (CoCl2) | | Haut | TWA: 0.02 mg/m ³ 8 horas | | TWA: 0.02 mg/m ³ 8 tunteina |

| Component | Austria | Denmark | Switzerland | Poland | Norway |
|-----------------------------------|---|---------|---|------------------------------|--|
| Sulfuric acid, calcium salt (1:1) | MAK-KZGW: 10 mg/m ³ 15 Minuten MAK-TMW: 5 mg/m ³ 8 Stunden | | TWA: 3 mg/m³ 8 Stunden | TWA: 10 mg/m³ 8 godzinach | |
| Cobalt chloride (CoCl2) | Haut | | Haut/Peau TWA: 0.05 mg/m ³ 8 Stunden | | TWA: 0.02 mg/m ³ 8 timer |

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| Component | Bulgaria | Croatia | Ireland | Cyprus | Czech Republic |
|------------------------|-----------------------------|----------------------------------|-----------------------------------|--------|----------------|
| Sulfuric acid, calcium | TWA: 10.0 mg/m ³ | | TWA: 10 mg/m ³ 8 hr. | | |
| salt (1:1) | | | STEL: 30 mg/m ³ 15 min | | |
| Cobalt chloride | | TWA-GVI: 0.1 mg/m ³ 8 | | | |
| (CoCl2) | | satima. Co | | | |

| Component | Estonia | Gibraltar | Greece | Hungary | Iceland |
|------------------------|---------|-----------|--------|------------------------------|---------|
| Sulfuric acid, calcium | | | | TWA: 4 mg/m ³ 8 | |
| salt (1:1) | | | | órában. AK | |
| | | | | TWA: 1.5 mg/m ³ 8 | |
| | | | | órában. AK | |

| Component | Latvia | Lithuania | Luxembourg | Malta | Romania |
|------------------------|--------------------------|-----------|------------|-------|---------|
| Sulfuric acid, calcium | TWA: 4 mg/m ³ | | | | |
| salt (1:1) | - | | | | |

| Component | Russia | Slovak Republic | Slovenia | Sweden | Turkey |
|-----------------------------------|--------|--|---|--|--------|
| Sulfuric acid, calcium salt (1:1) | | TWA: 4 mg/m³ inhalable fraction TWA: 1.5 mg/m³ | TWA: 6 mg/m³ 8 urah respirable fraction | | |
| Cobalt chloride (CoCl2) | | | | TLV: 0.02 mg/m ³ 8 timmar. Co NGV Hud | |

Biological limit values

List source(s):

| Component | European Union | United Kingdom | France | Spain | Germany |
|-----------------|----------------|----------------|---------------------------|-------|---------|
| Cobalt chloride | | | Cobalt: 0.001 mg/L | | |
| (CoCl2) | | | blood end of shift at end | | |
| | | | of workweek | | |
| | | | Cobalt: 0.015 mg/L | | |
| | | | urine end of shift at end | | |
| | | | of workweek | | |

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------|
| Sulfuric acid, calcium salt (1:1) 7778-18-9 (> 95) | | DNEL = 5082mg/m ³ | | DNEL = 21.17mg/m ³ |

Predicted No Effect Concentration (PNEC)

See values below.

| Component | Fresh water | Fresh water sediment | Microorganisms in sewage treatment | Soil (Agriculture) |
|-----------------------------------|-------------|----------------------|------------------------------------|--------------------|
| Sulfuric acid, calcium salt (1:1) | | | PNEC = 100mg/L | |
| 7778-18-9 (> 95) | | | | |

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8.2. Exposure controls

Engineering Measures

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles (European standard - EN 166)

Hand Protection Protective gloves

| Glove material Natural rubber Nitrile rubber Neoprene | Breakthrough time See manufacturers recommendations | Glove thickness | EU standard EN 374 | Glove comments (minimum requirement) |
|---|---|-----------------|-----------------------|---|
| PVC | | | | |

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particulates filter conforming to EN 143

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure

limits are exceeded or if irritation or other symptoms are experienced.

Recommended half mask:- Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water

system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Solid

Appearance Blue

Odor
Odor No information available
No data available
Melting Point/Range 1450 °C / 2642 °F
Softening Point No data available
Boiling Point/Range No information available

Flammability (liquid) Not applicable Solid

Flammability (solid,gas) No information available

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Solid

Solid

Explosion Limits No data available

Flash Point No information available Method - No information available

Autoignition Temperature
Decomposition Temperature
pH

No data available
No data available
No information available

Viscosity Not applicable

Water Solubility Slightly soluble

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component log Pow
Sulfuric acid, calcium salt (1:1) -0.2
Cobalt chloride (CoCl2) 0.85

Vapor Pressure

Density / Specific Gravity

Bulk Density

Vapor Density

No data available
No data available
No data available
Not applicable

Particle characteristics No data available

9.2. Other information

Molecular Formula Ca O4 S Molecular Weight 136.13

Evaporation Rate Not applicable - Solid

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions No information available.

10.4. Conditions to avoid

Incompatible products. Exposure to moist air or water. Avoid dust formation.

10.5. Incompatible materials

Strong oxidizing agents. Metals.

10.6. Hazardous decomposition products

Calcium oxides. Sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(a) acute toxicity;

Oral Based on available data, the classification criteria are not met

Dermal No data available

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Inhalation No data available

Toxicology data for the components

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------------------------------|----------------------|-------------|----------------------------|
| Sulfuric acid, calcium salt (1:1) | > 3000 mg/kg (Rat) | - | LC50 > 3.26 mg/L (Rat) 4 h |
| Cobalt chloride (CoCl2) | 586 mg/kg (Rat) | - | - |

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

Respiratory Category 1 Skin Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity; Category 2

Contains a known or suspected mutagen

(f) carcinogenicity; Category 1B

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component | EU | UK | Germany | IARC |
|-------------------------|--------------|----|---------|----------|
| Cobalt chloride (CoCl2) | Carc Cat. 1B | | | Group 2B |

(g) reproductive toxicity; Category 1B

Reproductive Effects Product is or contains a chemical which is a known or suspected reproductive hazard.

No data available (h) STOT-single exposure;

(i) STOT-repeated exposure; No data available

No information available. **Target Organs**

Not applicable (j) aspiration hazard;

Solid

Other Adverse Effects The toxicological properties have not been fully investigated.

delayed

Symptoms / effects, both acute and Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any

known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

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Ecotoxicity effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment. The product contains following substances which are hazardous for the

environment.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|-----------------------------------|----------------------------|----------------------|------------------|
| Sulfuric acid, calcium salt (1:1) | Lepomis macrochirus: LC50: | EC50: 3200 mg/L/120H | |
| | 2.98 mg/L/96H | | |
| Cobalt chloride (CoCl2) | Cyprinus carpio: LC50=0.33 | 1.1-1.6 mg/L 48h | |
| | mg/L 96h | - | |

| Component | Microtox | M-Factor |
|-------------------------|----------|----------|
| Cobalt chloride (CoCl2) | | 10 |

12.2. Persistence and degradability

Persistence Persistence is unlikely.

Degradability Not relevant for inorganic substances.

Degradation in sewage Contains substances known to be hazardous to the environment or not degradable in waste

treatment plant water treatment plants.

12.3. Bioaccumulative potential May have some potential to bioaccumulate

| Component | log Pow | Bioconcentration factor (BCF) |
|-----------------------------------|---------|-------------------------------|
| Sulfuric acid, calcium salt (1:1) | -0.2 | No data available |
| Cobalt chloride (CoCl2) | 0.85 | No data available |

12.4. Mobility in soil Is not likely mobile in the environment due its low water solubility.

12.5. Results of PBT and vPvB

assessment

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not

require assessment.

12.6. Endocrine disrupting

properties

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant Ozone Depletion Potential This product does not contain any known or suspected substance This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused

Products

Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in

accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but

application specific.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the

application for which the product was used. Do not empty into drains. Do not let this

chemical enter the environment.

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Switzerland - Waste Ordinance

Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance,

ADWO) SR 814.600

https://www.fedlex.admin.ch/eli/cc/2015/891/en

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN3077

14.2. UN proper shipping name Environmentally hazardous substances, solid, n.o.s.

Technical Shipping Name Cobaltous choride

14.3. Transport hazard class(es) 9
14.4. Packing group III

ADR

14.1. UN number UN3077

14.2. UN proper shipping name Environmentally hazardous substances, solid, n.o.s.

Technical Shipping Name Cobaltous choride

14.3. Transport hazard class(es) 9
14.4. Packing group III

IATA

14.1. UN number UN3077

14.2. UN proper shipping name Environmentally hazardous substances, solid, n.o.s.

Technical Shipping Name Cobaltous choride

14.3. Transport hazard class(es) 9 **14.4. Packing group** III

14.5. Environmental hazards Dangerous for the environment

Product is a marine pollutant according to the criteria set by IMDG/IMO

14.6. Special precautions for user No special precautions required

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component | CAS No | EINECS | ELINCS | NLP | IECSC | TCSI | KECL | ENCS | ISHL |
|-----------------------------------|-----------|-----------|--------|-----|-------|------|----------|------|------|
| Sulfuric acid, calcium salt (1:1) | 7778-18-9 | 231-900-3 | - | - | X | X | KE-04614 | X | X |
| Cobalt chloride (CoCl2) | 7646-79-9 | 231-589-4 | - | - | X | X | KE-06095 | Х | Х |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|-----------------------------------|-----------|------|---|-----|------|------|-------|-------|
| Sulfuric acid, calcium salt (1:1) | 7778-18-9 | X | ACTIVE | X | - | X | Χ | X |
| Cobalt chloride (CoCl2) | 7646-79-9 | Х | ACTIVE | Х | - | Х | Х | Х |

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Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

Authorisation/Restrictions according to EU REACH

| Component | | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|--------------------|--------|---|---|--|
| Cobalt chloride (C | coCl2) | - | Use restricted. See item 28. (see link for restriction details) Use restricted. See item 30. (see link for restriction details) Use restricted. See item 75. (see link for restriction details) | SVHC Candidate list - 231-589-4 - Carcinogenic, Article 57a;Toxic for reproduction, Article 57c |

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

https://echa.europa.eu/authorisation-list

https://echa.europa.eu/substances-restricted-under-reach

https://echa.europa.eu/candidate-list-table

| Component | CAS No | Seveso III Directive (2012/18/EC) - | ` ' |
|-----------------------------------|-----------|-------------------------------------|----------------------------------|
| | | Qualifying Quantities for Major | Qualifying Quantities for Safety |
| | | Accident Notification | Report Requirements |
| Sulfuric acid, calcium salt (1:1) | 7778-18-9 | Not applicable | Not applicable |
| Cobalt chloride (CoCl2) | 7646-79-9 | Not applicable | Not applicable |

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

Water endangering class = 2 (self classification)

| Component | Germany - Water Classification (VwVwS) | Germany - TA-Luft Class |
|-----------------------------------|--|-------------------------|
| Sulfuric acid, calcium salt (1:1) | WGK1 | |
| Cobalt chloride (CoCl2) | WGK3 | |

| Component | France - INRS (Tables of occupational diseases) |
|-------------------------|--|
| Cobalt chloride (CoCl2) | Tableaux des maladies professionnelles (TMP) - RG 65,RG 70 |

Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

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SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H332 - Harmful if inhaled

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H341 - Suspected of causing genetic defects

H350i - May cause cancer by inhalation

H360F - May damage fertility

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

Legend

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

> **ENCS** - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association**

MARPOL - International Convention for the Prevention of Pollution from

Ships

ATE - Acute Toxicity Estimate VOC - (volatile organic compound)

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data Health Hazards Calculation method **Environmental hazards** Calculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Health, Safety and Environmental Department **Prepared By**

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This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Drierite®, indicating Revision Date 18-Jan-2021

COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

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End of Safety Data Sheet