

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 02/09/2018

Version 1.5

SISECTION 1.Identification

Product identifier

Product number DX2515

Product name Drierite® Absorbent Indicating
 Mesh

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

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821,

United States of America | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5) MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.

Emergency telephone 800-424-9300 CHEMTREC (USA)

+1-703-527-3887 CHEMTREC (International)

24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Respiratory sensitization, Category 1, H334

Skin sensitization, Category 1, H317

Germ cell mutagenicity, Category 2, H341

Carcinogenicity, Category 1B, Inhalation, H350i

Reproductive toxicity, Category 1B, H360

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word
Danger

Hazard Statements

H350i May cause cancer by inhalation.

H360 May damage fertility or the unborn child.

H317 May cause an allergic skin reaction.

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

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H341 Suspected of causing genetic defects.

Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves.

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

P304 + P341 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

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

P321 Specific treatment (see supplemental first aid instructions on this label).

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature

Mixture of inorganic compounds

Hazardous ingredients

Chemical name (Concentration)

CAS-No.

Calcium sulfate (>= 90 % - <= 100 %)

7778-18-9

Exact percentages are being withheld as a trade secret.

Cobalt(II) chloride (>= 1 % - < 5 %)

7646-79-9

Exact percentages are being withheld as a trade secret.

SECTION 4. First aid measures

Description of first-aid measures

General advice

First aider needs to protect himself.

Inhalation

After inhalation: fresh air. Call in physician.

Skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.

Eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

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Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Allergic reactions, irritant effects

Symptoms of an acute cobalt intoxication: diarrhea, loss of appetite, drop in body temperature, drop in blood pressure. Toxic effect on kidneys (proteinuria, anuria), heart, and pancreas.

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Special powder against metal fire, Cover with dry sand or cement.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:

Sulfur oxides

Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Protective equipment see section 8.

Advice for emergency responders:

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

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Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Work under hood. Do not inhale substance/mixture.

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Store at room temperature.

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis Value Threshold Remarks limits

1111

Calcium sulfate 7778-18-9
ACGIH Time Weighted Average 10 mg/m³ Form of exposure: Inhalable fraction.

(TWA):

NIOSH/GUIDE Recommended 5 mg/m³ Form of exposure: Respirable.

exposure limit (REL):

Recommended 10 mg/m³ Form of exposure: Total

exposure limit (REL):

OSHA_TRANS PEL: 15 mg/m³ Form of exposure: Total dust.

PEL: 5 mg/m³ Form of exposure: Respirable fraction.

Z1A Time Weighted Average 15 mg/m³ Form of exposure: Total dust.

(TWA):

Time Weighted Average 5 mg/m³ Form of exposure: Respirable fraction. (TWA):

Cobalt(II) chloride 7646-79-9

ACGIH Time Weighted Average 0.02 mg/m³ Expressed as: as Co

(TWA):

Engineering measures

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

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Safety glasses

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Hand protection

full contact:

Glove material: Nitrile rubber
Glove thickness: 0.11 mm
Break through time: > 480 min

splash contact:

Glove material: Nitrile rubber Glove thickness: 0.11 mm Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 3 (acc. to DIN 3181) for solid and liquid particles of toxic and very toxic substances

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer. These measures have to be properly documented.

SECTION 9. Physical and chemical properties

Physical state solid

Color blue

Odor No strong odor known.

Odor Threshold No information available.

pH No information available.

Melting point No information available.

Boiling point No information available.

Flash point Not applicable

Evaporation rate No information available.

Flammability (solid, gas)

The product is not flammable.

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Lower explosion limit No information available.

Upper explosion limit No information available.

Vapor pressure No information available.

Relative vapor density No information available.

Density No information available.

Relative density No information available.

Water solubility No information available.

Partition coefficient: n-

octanol/water

No information available.

Autoignition temperature No information available.

Decomposition temperature No information available.

Viscosity, dynamic No information available.

Explosive properties Not classified as explosive.

Oxidizing properties none

SECTION 10. Stability and reactivity

Reactivity

See below

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

Alkali metals

Violent reactions possible with:

Oxidizing agents

Conditions to avoid

no information available

Incompatible materials

no information available

Hazardous decomposition products

in the event of fire: See section 5.

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SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Target Organs

Eyes Skin

Respiratory system

Acute oral toxicity

Acute toxicity estimate: > 2,000 mg/kg

Calculation method

Skin irritation slight irritation Eye irritation slight irritation Sensitization

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

CMR effects

Mutagenicity: Suspected of causing genetic defects.

Carcinogenicity: May cause cancer by inhalation.

Teratogenicity / Reproductive toxicity: May damage fertility or the unborn child.

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC Group 2B: Possibly carcinogenic to humans

Cobalt(II) chloride 7646-79-9

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

ACGIH Confirmed animal carcinogen with unknown relevance to

humans.

Cobalt(II) chloride 7646-79-9

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Further information

Symptoms of an acute cobalt intoxication: diarrhea, loss of appetite, drop in body temperature, drop in blood pressure. Toxic effect on kidneys (proteinuria, anuria), heart, and pancreas.

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

Ingredients

Calcium sulfate

Skin irritation Rabbit

Result: No skin irritation OECD Test Guideline 404

Eye irritation Rabbit

Result: No eye irritation OECD Test Guideline 405

Germ cell mutagenicity Genotoxicity in vitro

Ames test Result: negative (ECHA)

Cobalt(II) chloride

Acute oral toxicity LD50 Rat: 418 mg/kg OECD Test Guideline 401

Acute dermal toxicity

LDLO Rat: 2,000 mg/kg (RTECS) Cobalt oxide

Skin irritation In vitro study

Result: non-corrosive OECD Test Guideline 431

Rabbit

Result: No skin irritation OECD Test Guideline 404

Eye irritation

Result: Irreversible effects on the eye

OECD Test Guideline 405

Sensitization

Buehler Test Guinea pig

Result: positive

Method: OECD Test Guideline 406

Germ cell mutagenicity Genotoxicity in vivo In vivo micronucleus test

Mouse

Result: negative

Method: OECD Test Guideline 474

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Product name Drierite® Absorbent Indicating
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In vivo micronucleus test

Mouse

Result: negative

Method: OECD Test Guideline 474

Genotoxicity in vitro Ames test Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Additional ecological information

Discharge into the environment must be avoided.

Ingredients

Calcium sulfate

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

PBT/vPvB: Not applicable for inorganic substances

Cobalt(II) chloride

Toxicity to fish

flow-through test LC50 Danio rerio (zebra fish): 85.3 mg/l; 96 h

Analytical monitoring: yes(ECHA)

Toxicity to daphnia and other aquatic invertebrates static test LC50 Ceriodaphnia dubia (water flea): 0.605 mg/l; 48 h Analytical monitoring: yes

Analytical monitorii

US-EPA

Toxicity to algae IC50 algae: 0.0067 mg/l

Toxicity to bacteria

Respiration inhibition EC50 activated sludge: 120 mg/l; 30 min

Analytical monitoring: yes OECD Test Guideline 209

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Toxicity to fish (Chronic toxicity)

flow-through test NOEC Oncorhynchus mykiss (rainbow trout): 2.1 mg/l; 81 d

Analytical monitoring: yes OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

semi-static test NOEC: 6.83 mg/l; 28 d

Analytical monitoring: yes

OECD Test Guideline 211

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Partition coefficient: n-octanol/water

log Pow: 0.85 (calculated)

(Lit.) Bioaccumulation is not expected.

M-Factor

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number UN 3077

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S. (COBALT DICHLORIDE)

Class 9
Packing group III
Environmentally hazardous --

Air transport (IATA)

UN number UN 3077

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S. (COBALT DICHLORIDE)

Class 9
Packing group III
Environmentally hazardous --

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number DX2515 Version 1.5

Product name Drierite® Absorbent Indicating
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Special precautions for user no

Sea transport (IMDG)

UN number UN 3077

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S. (COBALT DICHLORIDE)

Class 9
Packing group III
Environmentally hazardous -Special precautions for user
EmS F-A S-F

SECTION 15. Regulatory information

United States of America

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

Cobalt(II) chloride 7646-79-9 *3 %*

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311,

Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311,

Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Ingredients

Calcium sulfate

Pennsylvania Right To Know

Ingredients

Calcium sulfate

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New Jersey Right To Know

Ingredients

Calcium sulfate

Cobalt(II) chloride

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Labeling

Hazard pictograms





Signal Word Danger

Hazard Statements

H317 May cause an allergic skin reaction.

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

H341 Suspected of causing genetic defects.

H350i May cause cancer by inhalation.

H360 May damage fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P201 Obtain special instructions before use.

P273 Avoid release to the environment.

P280 Wear protective gloves.

Response

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

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Restricted to professional users.

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

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if

inhaled.

H341 Suspected of causing genetic defects. H350i May cause cancer by inhalation.

H360 May damage fertility or the unborn child.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date02/09/2018

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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