

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

1.1 Product identifiers

Product name: Anhydrone Desiccant, Self Indicating, OEA

Catalogue no: R42010

SDS reference no: R42010

Brand: OEA Labs

EC index no(s):

REACH no: The annual tonnage does not require registration.

CAS no(s): Mg(ClO4) [10034-81-8] CoCl2 [7791-13-1]

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

Identified uses: Elemental analysis scientific instrumentation. Not for pharmaceutical, domestic or other uses.

1.3 Details of the supplier of the safety data sheet

Company name: OEA Laboratories Limited
Unit C2 Florence Road Business Park
Kelly Bray, Callington, Cornwall
PL17 8EX, United Kingdom

Telephone: +44 (0)1579 384174

Fax: +44 (0)1579 384174

Email: sales@oealabs.com

1.4 Emergency telephone number

Telephone: +44 (0)1579 384174, +44 (0) 1579 350212, +44 (0) 7811 102906

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture according to Regulation (EC) No 1272/2008

Oxidising liquids; Oxidising solids (Category 3), H272

Sensitisation, respiratory (Category 1), H334

Serious eye damage/eye irritation (Category 1), H318

Skin corrosion/irritation (Category 1), H317

Carcinogenicity, inhalation (Category 1A), H350i

2.2 Labelling elements according to Regulation (EC) No 1272/2008

Pictogram(s):



GHS03



GHS08



GHS05

Signal word: Warning

Hazard statement(s):

H272 May intensify fire; oxidiser.

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

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H350i May cause cancer by inhalation.

Precautionary statement(s):

P201 Obtain special instructions before use.

P220 Keep/Store away from clothing/combustible materials

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

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P284 Wear respiratory protection.

Restricted to professional users.

2.2 Other hazards

None

SECTION 3. Composition/information of ingredients

3.1 Substances

Synonyms: Magnesium Perchlorate

Formula: Mg(ClO4)2 CoCl2

Molecular weight: 223.21 g/mol

Components:

Magnesium Perchlorate	Concentration: >98%
CAS No 10034-81-8, EC No 233-108-3, H272, Oxidising liquids; Oxidising solids, Category 3; H315, Skin corrosion/irritation, Category 2; H315, Skin corrosion/irritation, Category 2; H335, Specific organ toxicity, single exposure; Respiratory tract irritation, Category 3.	
Cobalt (II) Chloride	Concentration: 0.5 to 2%
CAS No 7646-79-9, EC No 231-589-4, Index No 027-004-00-5, H302, Accute toxicity, oral, Category 5; H317, Skin corrosion/irritation, Category 1; H318, Serious eye damage/eye irritation, Category 1; H334, Sensitisation, respiratory, Category 1.	

SECTION 4. First aid measures

4.1 Description of first aid measures

General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

If Inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact:

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas, Magnesium oxide.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Handle and store under inert gas. Reacts violently with water - strongly hygroscopic. Storage class (TRGS 510): Strongly oxidizing hazardous materials.

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters:

Magnesium Perchlorate

CAS No 10034-81-8, No occupational exposure limit values, , ;

Cobalt (II) Chloride

CAS No 7646-79-9, TWA, 0.1mg/m³, UK, EH40 WEL; Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological, irritant or other mechanism. Once the airways have become hyperresponsive, further exposure to the substance, sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyperresponsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers. Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., ,

8.2 Exposure controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:

Eye/face protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection:

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental protection:

No data available.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	Hygroscopic granules
Colour:	White with blue flecks when dry
Odour:	No data available.
Odour threshold:	No data available.
pH:	No data available.
Melting point:	251°C with decomposition
Boiling point:	No data available.
Flash point:	No data available
Flammability solid/gas:	No data available.
Upper/lower flammability or explosive limits:	No data available.
Water solubility:	Soluble.
Autoignition temp:	No data available.
Decomp temperature:	No data available.
Explosive properties:	No data available.
Oxidising properties:	The substance or mixture is classified as oxidizing with the category 2.

9.2 Other safety information

No data available.

SECTION 10. Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Water, Strong reducing agents, Organic materials, Powdered metals, Strong acids

10.6 Hazardous decomposition products

No data available. In the event of fire: see section 5

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 Intraperitoneal - Mouse - 1,500 mg/kgs (Mg(ClO₄)₂); LD50 Oral - Rat - 418 mg/kg (CoCl₂)

Skin corrosion/irritation:

No data available.

In the event of fire: see section 5

Serious eye damage/eye irritation:

Eyes - Rabbit - Result: Risk of serious damage to eyes. (OECD Test Guideline 405) (CoCl₂)

In the event of fire: see section 5

Respiratory or skin sensitisation:

No data available.

In the event of fire: see section 5

Germ cell mutagenicity:

In vitro tests showed mutagenic effects. Human, HeLa cell, DNS inhibition (CoCl₂)

Carcinogenicity:

Possible human carcinogen May cause cancer by inhalation. IARC: 2B - Group 2B: Possibly carcinogenic to humans (CoCl₂); 2B - Group 2B: Possibly carcinogenic to humans (CoCl₂)

Reproductive toxicity:

Reproductive toxicity - Mouse - Oral. Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Paternal Effects: Testes, epididymis, sperm duct. Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females). May damage fertility. Presumed human reproductive toxicant. (CoCl₂)

Specific target organ toxicity - single exposure:

Inhalation - May cause respiratory irritation

Specific target organ toxicity - repeated exposure:

No data available.

Aspiration hazard:

No data available.

Potential health effects - inhalation:

No data available.

Potential health effects - ingestion:

No data available.

Potential health effects - skin:

No data available.

Potential health effects - eyes:

No data available.

Signs and symptoms of exposure:

No data available.

Additional information:

RTECS: GF9800000. Blood disorders, Cough, Shortness of breath, Headache, Nausea, Vomiting (CoCl₂)

SECTION 12. Ecological information

12.1 Toxicity

Toxicity to fish:

LC50 - Cyprinus carpio (Carp) - 0.33 mg/l - 96 h (CoCl₂)

Toxicity to daphnia and other aquatic invertebrates:

mortality NOEC - Daphnia (water flea) - < 0.05 mg/l - 7 d (CoCl₂)

EC50 - Daphnia magna (Water flea) - 1.1 - 1.6 mg/l - 48 h (CoCl₂)

Toxicity to algae: EC50 - Chlorella vulgaris (Fresh water algae) - 0.52 mg/l - 96 h (CoCl₂)
Toxicity to bacteria: No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Product:

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging:

Dispose of as unused product.

SECTION 14. Transport information

14.1 UN number

ADR/RID/IATA/IMDG: UN1475



14.2 UN proper shipping name

ADR/RID/IATA/IMDG: MAGNESIUM PERCHLORATE

14.3 Transport hazard class(es)

ADR/RID/IATA/IMDG: 5.1

14.4 Packaging group

ADR/RID/IATA/IMDG: II

14.5 Environmental hazards

ADR/RID/IATA/IMDG:

14.6 Special precautions for user

14.7 Shipping quantities

ADR LQ maximum: 1kg

ADR EQ code: E2

ADR EQ IP/pkg: 30gm pkg to 500gm

IATA LQ PInstruction: Y544

IATA LQ IP/pkg: 0.5kg (glass, plastic) to 2.5kg

IATA EQ code: E2

IATA EQ IP/pkg: 30gm pkg to 500gm

De minimus:

SECTION 15. Regulatory information

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

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

CoCl₂ CAS-No.: 7646-79-9 REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). Toxic for reproduction (article 57c) ED/31/2011

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. OEA Laboratories Limited shall not be held liable for any damage resulting from the handling or contact with the above product. See www.oealabs.com for terms and conditions of sale.