

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

### 1.1 Product identifiers

**Product name:** Cobaltous/ic Oxide Combustion Reagent, OEA  
**Catalogue no:** R12000  
**SDS reference no:** R12000  
**Brand:** OEA Labs  
**EC index no(s):** 215-157-2  
**REACH no:** The annual tonnage does not require registration.  
**CAS no(s):** Co3O4 [1308-06-1]

### 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  
The Generator Quay House  
The Gallery, Kings Wharf  
The Quay, Exeter  
EX2 4AN  
United Kingdom  
**Telephone:** +44 (0)1579 384174  
**Email:** [sales@oealabs.com](mailto:sales@oealabs.com)

### 1.4 Emergency telephone number

**Telephone:** +44 (0)1579 384174

## SECTION 2. Hazards identification

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

Carcinogenicity, inhalation (Category 1A), H350i  
Skin corrosion/irritation (Category 1), H317  
Carcinogenicity (Category 2), H351

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

**Pictogram(s):**



GHS08



GHS07

GHS08

**Signal word:** Danger

**Hazard statement(s):**

H350i May cause cancer by inhalation.  
H317 May cause an allergic skin reaction.  
H351 Suspected of causing cancer.

**Precautionary statement(s):**

P201 Obtain special instructions before use.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
Restricted to professional users.

### 2.2 Other hazards

None

## SECTION 3. Composition/information of ingredients

### 3.1 Substances

**Synonyms:** Tricobalt tetraoxide  
**Formula:** Co3O4  
**Molecular weight:** 240.80g/mol

**Components:**

Cobalt (II,III) Oxide Concentration: ~100%

CAS No 1308-06-1, EC No 215-157-2, H350i, Carcinogenicity, inhalation, Category 1A; H317, Skin corrosion/irritation, Category 1; H351, Carcinogenicity, Category 2;

## 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:**

Flush eyes with water as a precaution.

**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 (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**

Cobalt/cobalt oxides

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available.

**SECTION 6. Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe area. Avoid breathing dust.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**

Pick up and arrange for disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For safe handling see Section 7. For disposal see Section 13. For personal protection equipment see Section 8.

**SECTION 7. Handling and storage**

**7.1 Precautions for safe handling**

Ensure good ventilation of the workplace. Avoid contact with eyes and skin. Avoid formation of dust, vapours and aerosols. Follow normal measures for fire protection.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep containers tightly sealed. Store in a cool, dry place.

**7.3 Specific end uses**

Apart from 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:**

Cobalt (II,III) Oxide

CAS No 1308-06-1, TWA, 0.1mg/m<sup>3</sup>, UK, EH40 WEL

**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 the workday.

**Personal protective equipment:**

**Eye/face protection:**

Safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN166.

**Skin protection:**

Handle with gloves to specification EU Directive 89/686/EEC and EN374. Inspect prior to use. Use proper glove removal practice to avoid contact with product. Wash and dry hands.

**Body protection:**

Complete suit protection against chemicals. The type of protective equipment must be selected according to the concentration and amount of 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 (EN143) respirators 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:**

Prevent further leakage or spillage if safe to do so. Do not let the product enter drains. Discharge into the environment must be avoided.

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form:</b>	Granules
<b>Colour:</b>	Dark grey/black
<b>Odour:</b>	No data available
<b>Odour threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Melting point:</b>	895°C
<b>Boiling point:</b>	No data available
<b>Flash point:</b>	Not applicable
<b>Flammability solid/gas:</b>	No data available
<b>Upper/lower flammability or explosive limits:</b>	No data available
<b>Water solubility:</b>	Insoluble
<b>Autoignition temp:</b>	No data available
<b>Decomp temperature:</b>	>900°C
<b>Explosive properties:</b>	No data available
<b>Oxidising properties:</b>	No data available

### 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

Avoid moisture

### 10.5 Incompatible materials

Reducing agents

### 10.6 Hazardous decomposition products

No data available. In the event of a fire see Section 5.

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity:**

LD50 Oral - rat - >5,000mg/kg - Nutritional and Gross Metabolic: Weight loss or decreased weight gain.  
LC50 Inhalation - rat - 4hr - >4830ppm  
LD50 Dermal - rat - >2,000mg/kg

**Skin corrosion/irritation:**

Skin - rat - no skin irritation

**Serious eye damage/eye irritation:**

No data available

**Respiratory or skin sensitisation:**

No data available

**Germ cell mutagenicity:**

No data available

**Carcinogenicity:**

This product is or contains a component that has been reported to be a possible carcinogen based on its IARC,ACGIH, NTP or EPA classification.

Limited evidence of carcinogenicity in animal studies.

IARC: 1 - Group 1: Carcinogenic to humans (nickel monoxide)

**Reproductive toxicity:**

No data available

**Specific target organ toxicity - single exposure:**

No data available

**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:**

Effects due to ingestion may include: burning pain in mouth, throat or stomach. Prolonged or repeated exposure may cause: fatigue, cardiac irregularities, convulsions, vomiting

## SECTION 12. Ecological information

### 12.1 Toxicity

**Toxicity to fish:** LC50 - Danio rerio (zebra fish) - >136mg/l - 96hrs

**Toxicity to daphnia and other aquatic invertebrates:** EC50 - Daphnia magna (water flea) - >136mg/l - 48hrs

**Toxicity to algae:** EC50 - Pseudokirchneriella subcapitata (green algae) - 88mg/l - 72hrs

**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

No data available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

Harmful to aquatic life. No data available.

## SECTION 13. Disposal considerations

### 13.1 Waste treatment methods

**Product:**

Offer surplus and non-recyclable material to a licensed professional waste disposal company.

**Contaminated packaging:**

Dispose of as unused product.

### SECTION 14. Transport information

<b>14.1 UN number</b>	ADR/RID/IATA/IMDG: <input type="text" value="Not dangerous goods"/>
<b>14.2 UN proper shipping name</b>	ADR/RID/IATA/IMDG: <input type="text" value="Not dangerous goods"/>
<b>14.3 Transport hazard class(es)</b>	ADR/RID/IATA/IMDG: <input type="text" value="Not dangerous goods"/>
<b>14.4 Packaging group</b>	ADR/RID/IATA/IMDG: <input type="text" value="Not dangerous goods"/>
<b>14.5 Environmental hazards</b>	ADR/RID/IATA/IMDG: <input type="text" value="Not dangerous goods"/>
<b>14.6 Special precautions for user</b>	<input type="text" value="Not dangerous goods"/>
<b>14.7 Shipping quantities</b>	
ADR LQ maximum:	<input type="text" value="Not dangerous goods"/>
ADR EQ code:	<input type="text" value="Not dangerous goods"/>
ADR EQ IP/pkg:	<input type="text" value="Not dangerous goods"/>
IATA LQ PInstruction:	<input type="text" value="Not dangerous goods"/>
IATA LQ IP/pkg:	<input type="text" value="Not dangerous goods"/>
IATA EQ code:	<input type="text" value="Not dangerous goods"/>
IATA EQ IP/pkg:	<input type="text" value="Not dangerous goods"/>
De minimus:	<input type="text" value="Not dangerous goods"/>

### SECTION 15. Regulatory information

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

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	<input type="text" value="No data available"/>
<b>15.2 Chemical safety assessment</b>	<input type="text" value="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](http://www.oealabs.com) for terms and conditions of sale.