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**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

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**1.1 Product identifier**

**Product name** ANKOR 1127 PLUS SR  
**Synonyms** 1127 PLUS SR • CHROMIUM TRIOXIDE • CHROMIUM TRIOXIDE, ANHYDROUS

**1.2 Uses and uses advised against**

**Uses** ELECTROPLATING

**1.3 Details of the supplier of the product**

**Supplier name** DUBOIS CHEMICALS AUSTRALIA PTY LIMITED  
**Address** 305 Frankston Dandenong Rd, Dandenong South, VIC, 3175, AUSTRALIA  
**Telephone** (03) 9768 3860  
**Email** [sales@duboischchemicals.com.au](mailto:sales@duboischchemicals.com.au)  
**Website** <http://duboischchemicals.com.au/>

**1.4 Emergency telephone numbers**

**Emergency** 13 11 26 (Poisons Information Centre)

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**2. HAZARDS IDENTIFICATION**

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**2.1 Classification of the substance or mixture**

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**Physical Hazards**

Oxidizing Solids: Category 1

**Health Hazards**

Acute Toxicity: Oral: Category 3  
Acute Toxicity: Skin: Category 3  
Skin Corrosion/Irritation: Category 1A  
Skin Sensitisation: Category 1  
Serious Eye Damage / Eye Irritation: Category 1  
Acute Toxicity: Inhalation: Category 1  
Respiratory Sensitisation: Category 1  
Germ Cell Mutagenicity: Category 1B  
Carcinogenicity: Category 1A  
Toxic to Reproduction: Category 1B  
Specific Target Organ Toxicity (Repeated Exposure): Category 1

**Environmental Hazards**

Aquatic Toxicity (Acute): Category 1  
Aquatic Toxicity (Chronic): Category 1

**2.2 GHS Label elements**

**Signal word** DANGER

**Pictograms**



**PRODUCT NAME ANKOR 1127 PLUS SR****Hazard statements**

|        |  |
|--------|--|
| H271   | May cause fire or explosion; strong oxidizer.                              |
| H301   | Toxic if swallowed.  |
| H311   | Toxic in contact with skin.  |
| H314   | Causes severe skin burns and eye damage.                                   |
| H317   | May cause an allergic skin reaction.                                       |
| H318   | Causes serious eye damage.   |
| H330   | Fatal if inhaled.  |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H340   | May cause genetic defects.   |
| H350   | May cause cancer.  |
| H360FD | May damage fertility. May damage the unborn child.                         |
| H372   | Causes damage to organs through prolonged or repeated exposure.            |
| H400   | Very toxic to aquatic life.  |
| H410   | Very toxic to aquatic life with long lasting effects.                      |

**Prevention statements**

|      |  |
|------|--|
| P201 | Obtain special instructions before use.  |
| P202 | Do not handle until all safety precautions have been read and understood.                      |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P220 | Keep away from clothing and other combustible materials.                                       |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray.   |
| P264 | Wash thoroughly after handling.  |
| P270 | Do not eat, drink or smoke when using this product.  |
| P271 | Use only outdoors or in a well-ventilated area.  |
| P272 | Contaminated work clothing should not be allowed out of the workplace.                         |
| P273 | Avoid release to the environment.  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  |
| P283 | Wear fire resistant or flame retardant clothing.   |
| P284 | Wear respiratory protection.   |

**Response statements**

|                    |  |
|--------------------|--|
| P301 + P330 + P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.   |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.                              |
| P304 + P340        | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P306 + P360        | IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.                   |
| P308 + P313        | IF exposed or concerned: Get medical advice/ attention.  |
| P310               | Immediately call a POISON CENTRE or doctor/physician.  |
| P320               | Specific treatment is urgent - see first aid instructions.   |
| P361 + P364        | Take off immediately all contaminated clothing and wash it before reuse.   |
| P362 + P364        | Take off contaminated clothing and wash it before reuse.   |
| P363               | Wash contaminated clothing before reuse.   |
| P370 + P378        | In case of fire: Use appropriate media to extinguish.  |
| P371 + P380 + P375 | In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.                     |
| P391               | Collect spillage.  |

**Storage statements**

|             |  |
|-------------|--|
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405        | Store locked up.   |
| P420        | Store separately.  |

**Disposal statements**

|      |  |
|------|--|
| P501 | Dispose of contents/container in accordance with relevant regulations. |
|------|--|

**2.3 Other hazards**

No information provided.

**3. COMPOSITION/ INFORMATION ON INGREDIENTS****3.1 Substances / Mixtures**

| Ingredient                | CAS Number    | EC Number     | Content   |
|---------------------------|---------------|---------------|-----------|
| CHROMIUM TRIOXIDE         | 1333-82-0     | 215-607-8     | >90%      |
| NON HAZARDOUS INGREDIENTS | Not Available | Not Available | Remainder |

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## 4. FIRST AID MEASURES

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### 4.1 Description of first aid measures

|                             |  |
|-----------------------------|--|
| <b>Eye</b>                  | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.                 |
| <b>Inhalation</b>           | If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Class P3 (Particulate) respirator where an inhalation risk exists. Apply artificial respiration if not breathing.         |
| <b>Skin</b>                 | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor. |
| <b>Ingestion</b>            | For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once).   |
| <b>First aid facilities</b> | Eye wash facilities and safety shower should be available.   |

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

See Section 11 for more detailed information on health effects and symptoms.

### 4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

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### 5.1 Extinguishing media

DO NOT use dry chemical, CO<sub>2</sub>, foam or halogenated-type extinguishers.

### 5.2 Special hazards arising from the substance or mixture

Non flammable. May evolve toxic hexavalent chromium oxides when heated to decomposition. Oxidising agent - supports combustion.

### 5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

### 5.4 Hazchem code

2W

2 Fine Water Spray.

W Risk of violent reaction or explosion. Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.

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## 6. ACCIDENTAL RELEASE MEASURES

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

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

### 6.2 Environmental precautions

Prevent product from entering drains and waterways.

### 6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

### 6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

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## 7. HANDLING AND STORAGE

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### 7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

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

Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Contamination with incompatibles may cause fire or explosion. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.

**7.3 Specific end uses**

No information provided.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure standards**

| Ingredient                      | Reference      | TWA |                   | STEL |                   |
|---------------------------------|----------------|-----|-------------------|------|-------------------|
|                                 |                | ppm | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |
| Chromium (VI) (as Cr)           | SWA [Proposed] | --  | 7E-6              | --   | --                |
| Chromium (VI) compounds (as Cr) | SWA [AUS]      | --  | 0.05              | --   | --                |

**Biological limits**

| Ingredient        | Determinant             | Sampling Time                   | BEI                                      |
|-------------------|-------------------------|---------------------------------|--|
| CHROMIUM TRIOXIDE | Total chromium in urine | End of shift at end of workweek | 25 µg/L                                  |
|                   | Total chromium in urine | Increase during shift           | 10 µg/L                                  |
|                   | Total chromium in urine | Post shift                      | 10 µmol chromium/mol creatinine in urine |
|                   | Total chromium in urine | End of shift at end of workweek | 30 µg/L                                  |
|                   | Total chromium in urine | End of shift at end of workweek | 25 µg/L                                  |

Reference: ACGIH Biological Exposure Indices

**8.2 Exposure controls**

**Engineering controls**

Avoid inhalation. In a laboratory situation use under a fume cupboard or other localised extraction ventilation equipment.

**PPE**

- Eye / Face** Wear a faceshield and dust-proof goggles.
- Hands** Wear rubber or butyl gloves.
- Body** Wear coveralls.
- Respiratory** Where an inhalation risk exists, wear an Air-line respirator or a Full-face Class P3 (Particulate) respirator.



**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

|                              |                |
|------------------------------|----------------|
| <b>Appearance</b>            | DARK RED SOLID |
| <b>Odour</b>                 | SLIGHT ODOUR   |
| <b>Flammability</b>          | NON FLAMMABLE  |
| <b>Flash point</b>           | NOT RELEVANT   |
| <b>Boiling point</b>         | NOT AVAILABLE  |
| <b>Melting point</b>         | NOT AVAILABLE  |
| <b>Evaporation rate</b>      | NOT AVAILABLE  |
| <b>pH</b>                    | NOT AVAILABLE  |
| <b>Vapour density</b>        | NOT AVAILABLE  |
| <b>Relative density</b>      | NOT AVAILABLE  |
| <b>Solubility (water)</b>    | SOLUBLE        |
| <b>Vapour pressure</b>       | NOT AVAILABLE  |
| <b>Upper explosion limit</b> | NOT RELEVANT   |

**9.1 Information on basic physical and chemical properties**

|                           |                 |
|---------------------------|-----------------|
| Lower explosion limit     | NOT RELEVANT    |
| Partition coefficient     | NOT AVAILABLE   |
| Autoignition temperature  | NOT AVAILABLE   |
| Decomposition temperature | NOT AVAILABLE   |
| Viscosity                 | NOT AVAILABLE   |
| Explosive properties      | NOT AVAILABLE   |
| Oxidising properties      | OXIDISING SOLID |
| Odour threshold           | NOT AVAILABLE   |

**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

Carefully review all information provided in sections 10.2 to 10.6.

**10.2 Chemical stability**

Stable under recommended conditions of storage.

**10.3 Possibility of hazardous reactions**

Polymerization is not expected to occur.

**10.4 Conditions to avoid**

Avoid heat, sparks, open flames and other ignition sources.

**10.5 Incompatible materials**

Oxidising agent. Incompatible with combustible materials, reducing agents (e.g. sulphites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), metals, heat and ignition sources.

**10.6 Hazardous decomposition products**

May evolve toxic hexavalent chromium oxides when heated to decomposition.

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute toxicity** Fatal if inhaled. Toxic in contact with skin and/or if swallowed.

**Information available for the ingredients:**

| Ingredient        | Oral LD50      | Dermal LD50 | Inhalation LC50 |
|-------------------|----------------|-------------|-----------------|
| CHROMIUM TRIOXIDE | 80 mg/kg (rat) | --          | --              |

|                                 |   |
|---------------------------------|---|
| <b>Skin</b>                     | Causes burns. Contact may result in irritation, redness, pain, rash, dermatitis and possible severe burns.  |
| <b>Eye</b>                      | Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible serious eye damage.  |
| <b>Sensitisation</b>            | May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.   |
| <b>Mutagenicity</b>             | There is some evidence that hexavalent chromium compounds may have genetic effects.   |
| <b>Carcinogenicity</b>          | Hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1), resulting in an increased risk of lung cancer.   |
| <b>Reproductive</b>             | May damage fertility or the unborn child.   |
| <b>STOT - single exposure</b>   | Over exposure to chromium dust may result in upper respiratory irritation. Ingestion may effect the gastrointestinal tract, kidneys, and the haematopoetic system.  |
| <b>STOT - repeated exposure</b> | Repeated exposure to hexavalent chromium via inhalation may result in ulceration and perforation of the nasal septum, bronchitis, decreased pulmonary function and pneumonia. Repeated exposure may also result in effects on the liver, kidney, gastrointestinal and immune systems, and possibly the blood. |
| <b>Aspiration</b>               | Not classified as causing aspiration.   |

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**12.2 Persistence and degradability**

WATER: Chromium (VI) may be reduced to Chromium (III) by organic matter present in water, and may eventually deposit in sediments. SOIL: Chromium in the soil may be transported from soil through runoff and leaching of water. ATMOSPHERE: Chromium is primarily removed from the atmosphere by fallout and precipitation and may enter surface water or soil.

**12.3 Bioaccumulative potential**

Expected to have a low bioconcentration potential in aquatic organisms.

**12.4 Mobility in soil**

Soluble in water.

**12.5 Other adverse effects**

Avoid release to the environment.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Waste disposal** Wearing personal protective equipment, cover with a WEAK reducing agent (e.g. sodium bisulphite, thiosulphate, or ferrous salt; but NOT sulphur, carbon or strong reducing agent). Mix well and spray with water. Add 3M sulphuric acid if sulphite or ferrous salt is used. Add to container of water and neutralise with soda ash. Collect and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required).

**Legislation** Dispose of in accordance with relevant local legislation.

**14. TRANSPORT INFORMATION**

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



|                                      | LAND TRANSPORT (ADG)         | SEA TRANSPORT (IMDG / IMO)   | AIR TRANSPORT (IATA / ICAO)  |
|--------------------------------------|------------------------------|------------------------------|------------------------------|
| <b>14.1 UN Number</b>                | 1463                         | 1463                         | 1463                         |
| <b>14.2 Proper Shipping Name</b>     | CHROMIUM TRIOXIDE, ANHYDROUS | CHROMIUM TRIOXIDE, ANHYDROUS | CHROMIUM TRIOXIDE, ANHYDROUS |
| <b>14.3 Transport hazard classes</b> | 5.1 (6.1, 8)                 | 5.1 (6.1, 8)                 | 5.1 (6.1, 8)                 |
| <b>14.4 Packing Group</b>            | II                           | II                           | II                           |

**14.5 Environmental hazards**

Marine Pollutant.

**14.6 Special precautions for user**

**Hazchem code** 2W  
**GTEPG** 5C2  
**EmS** F-A, S-Q

**Other information** The environmentally hazardous substance mark is not required when transported in packages of less than 5 kg/L (UN Model Regulations: Special Provision 375; IATA: Special Provision A197; IMDG: Special Provision 969) or less than 500 kg/L by Australian Road and Rail.

**15. REGULATORY INFORMATION**

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

**Poison schedule** Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**Classifications** Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).

**PRODUCT NAME ANKOR 1127 PLUS SR**

**Inventory listings AUSTRALIA: AIC (Australian Inventory of Industrial Chemicals)**  
All components are listed on AIC, or are exempt.

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**16. OTHER INFORMATION**

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**Additional information**

IARC GROUP 1 - CONFIRMED HUMAN CARCINOGEN. This product contains an ingredient for which there is sufficient evidence to have been classified by the International Agency for Research into Cancer as a human carcinogen. The use of products known to be human carcinogens should be strictly monitored and controlled.

CHROMATES - CHROMIUM PRODUCTS: Asthma sufferers, respiratory impaired or previously sensitised (respiratory or skin) individuals are advised to avoid all exposure to chromium or chromate based products.

CHROMIUM: The most common form of chromium found in nature and in biological materials is trivalent (III) chromium which is poorly absorbed into the body. Chromium (VI) is readily absorbed where it is converted intracellularly to the carcinogenic chromium (III) form. Chromium (VI) compounds are classified as carcinogenic to humans (IARC Group 1). Chromium (III) is not classifiable as to its carcinogenicity in humans (IARC Group 3).

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Abbreviations**

|                   |   |
|-------------------|---|
| ACGIH             | American Conference of Governmental Industrial Hygienists                                       |
| CAS #             | Chemical Abstract Service number - used to uniquely identify chemical compounds                 |
| CNS               | Central Nervous System  |
| EC No.            | EC No - European Community Number   |
| EMS               | Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)                   |
| GHS               | Globally Harmonized System  |
| GTEPG             | Group Text Emergency Procedure Guide  |
| IARC              | International Agency for Research on Cancer   |
| LC50              | Lethal Concentration, 50% / Median Lethal Concentration   |
| LD50              | Lethal Dose, 50% / Median Lethal Dose   |
| mg/m <sup>3</sup> | Milligrams per Cubic Metre  |
| OEL               | Occupational Exposure Limit   |
| pH                | relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). |
| ppm               | Parts Per Million   |
| STEL              | Short-Term Exposure Limit   |
| STOT-RE           | Specific target organ toxicity (repeated exposure)  |
| STOT-SE           | Specific target organ toxicity (single exposure)  |
| SUSMP             | Standard for the Uniform Scheduling of Medicines and Poisons                                    |
| SWA               | Safe Work Australia   |
| TLV               | Threshold Limit Value   |
| TWA               | Time Weighted Average   |

**PRODUCT NAME ANKOR 1127 PLUS SR**

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

**Prepared by**

Risk Management Technologies  
5 Ventnor Ave, West Perth  
Western Australia 6005  
Phone: +61 8 9322 1711  
Fax: +61 8 9322 1794  
Email: [info@rmt.com.au](mailto:info@rmt.com.au)  
Web: [www.rmtglobal.com](http://www.rmtglobal.com)

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