

# Safety Data Sheet

## AUS580

Safety Data Sheet dated 5/3/2014, version 1



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

#### 1.1. Product identifier

Mixture identification:

Trade name: AUS580  
Trade code: AP032-364

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

Recommended use:

For electroplating industry

#### 1.3. Details of the supplier of the safety data sheet

Company:

LEGOR GROUP S.p.A.  
Via del Lavoro, 1  
36050 Bressanvido (VI)  
Italy

LEGOR GROUP S.p.A.

tel. +39 0444 467911 fax +39 0444 660677

Competent person responsible for the safety data sheet:

#### 1.4. Emergency telephone number

LEGOR GROUP S.p.A.  
tel. +39 0444 467911 fax +39 0444 660677

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:

Properties / Symbols:

- T+ Very toxic
- N Dangerous for the environment

R Phrases:

- R26/27/28 Very toxic by inhalation, in contact with skin, and if swallowed.
- R32 Contact with acids liberates very toxic gas.
- R50 Very toxic to aquatic organisms.
- R53 May cause long-term adverse effects in the aquatic environment.

EC regulation criteria 1272/2008 (CLP):

- Danger, Acute Tox. 1, Fatal if inhaled.
  - Danger, Acute Tox. 1, Fatal in contact with skin.
  - Danger, Acute Tox. 2, Fatal if swallowed.
  - Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.
- EUH032 Contact with acids liberates very toxic gas.

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

Symbols:

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Danger

Hazard statements:

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH032 Contact with acids liberates very toxic gas.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

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### SECTION 3: Composition/information on ingredients

3.1. Substances

Identification of the substance

Trade code: AP032-364

Product type and use: For electroplating industry

>= 90% Potassium tetracyano aurate

CAS: 14263-59-3, EC: 238-145-9

T,Xi,N; R32-50-53-36/37/38-23/24/25

◇ 3.1/2/Inhal Acute Tox. 2 H330

◇ 3.1/2/Dermal Acute Tox. 2 H310

◇ 3.1/2/Oral Acute Tox. 2 H300

◇ 4.1/C1 Aquatic Chronic 1 H410

3.2. Mixtures

N.A.

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### SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

WARNING! This product is toxic through skin contact. OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then

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consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

Give nothing to eat or drink.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

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### SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

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### SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.

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Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

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

Keep away from food, drink and feed.

Incompatible materials:

Keep away from acids.

Instructions as regards storage premises:

Adequately ventilated premises.

### 7.3. Specific end use(s)

None in particular

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

### 8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

Environmental exposure controls:

None

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance and colour: White powder

Odour: Typical

Odour threshold: N.A.

pH: idrolisi basica

Melting point / freezing point: n/a

Initial boiling point and boiling range: n/a

Solid/gas flammability: no

Upper/lower flammability or explosive limits: N.A.

Vapour density: n/a

Flash point: NON INFIAMMABILE °C

Evaporation rate: N.A.

Vapour pressure: n/a

Relative density: 3,45 g/ml

Solubility in water: Total

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Partition coefficient (n-octanol/water):	n/a
Auto-ignition temperature:	n/a
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	n/a
Oxidizing properties:	n/a
9.2. Other information	
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

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### SECTION 10: Stability and reactivity

- 10.1. Reactivity
  - Stable under normal conditions
- 10.2. Chemical stability
  - Stable under normal conditions
- 10.3. Possibility of hazardous reactions
  - It may generate flammable gases on contact with mineral acids, organic acids, elementary metals (alkalis and alkaline earth), and nitrides.
  - It may generate toxic gases on contact with mineral acids, organic acids, organic peroxides and hydroperoxides, and powerful oxidising agents.
  - It may catch fire on contact with powerful oxidising agents.
- 10.4. Conditions to avoid
  - Stable under normal conditions.
- 10.5. Incompatible materials
  - None in particular.
- 10.6. Hazardous decomposition products
  - None.

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### SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
  - Toxicological information of the substance:
    - Potassium tetracyano aurate - CAS: 14263-59-3
      - No information is available on the product. Following data are referred to the decomposition product, hydrogen cyanide:
      - Inhalation toxicity: 200-400 mg/mc (ppm); if present in air for some minutes, they cause death.
      - Swallowing toxicity: not applicable.
      - Skin contact toxicity (Draize test): unknown reaction, possibly serious due to high reactivity of substance.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;

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- i) STOT-repeated exposure;
- j) aspiration hazard.

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### SECTION 12: Ecological information

- 12.1. Toxicity
  - Adopt good working practices, so that the product is not released into the environment.
  - Very toxic to aquatic organisms.
  - May cause long-term adverse effects in the aquatic environment.
  - N.A.
- 12.2. Persistence and degradability
  - None
  - N.A.
- 12.3. Bioaccumulative potential
  - N.A.
- 12.4. Mobility in soil
  - N.A.
- 12.5. Results of PBT and vPvB assessment
  - vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects
  - None

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### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods
  - Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

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### SECTION 14: Transport information

- 14.1. UN number
  - ADR-UN number: 1588
  - IATA-Un number: 1588
  - IMDG-Un number: 1588
- 14.2. UN proper shipping name
  - ADR-Shipping Name: CYANIDES, INORGANIC, SOLID. N.O.S.
  - IMDG-Technical name: CYANIDES, INORGANIC, SOLID. N.O.S.
- 14.3. Transport hazard class(es)
  - ADR-Class: 6.1
  - ADR-Label: 1588
  - IATA-Class: 6.1
  - IMDG-Class: 6.1
- 14.4. Packing group
  - ADR-Packing Group: II
  - IATA-Packing group: II
  - IMDG-Packing group: II
- 14.5. Environmental hazards
  - Marine pollutant: Marine pollutant
- 14.6. Special precautions for user
  - ADR-Tunnel Restriction Code: (D/E)
  - Rail (RID): 6.1
  - IATA-Passenger Aircraft: 613
  - IATA-Cargo Aircraft: 615
  - IMDG-Technical name: CYANIDES, INORGANIC, SOLID. N.O.S.
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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N.A.

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### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances)
  - Dir. 99/45/EC (Classification, packaging and labelling of dangerous preparations)
  - Dir. 98/24/EC (Risks related to chemical agents at work)
  - Dir. 2000/39/EC (Occupational exposure limit values)
  - Dir. 2006/8/EC
  - Regulation (EC) n. 1907/2006 (REACH)
  - Regulation (EC) n. 1272/2008 (CLP)
  - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
  - Regulation (EU) n. 453/2010 (Annex I)
  - Regulation (EU) n. 286/2011 (ATP 2 CLP)
  - Regulation (EU) n. 618/2012 (ATP 3 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

- Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.
- Regulation (EC) nr 648/2004 (detergents).
- 1999/13/EC (VOC directive)

- 15.2. Chemical safety assessment

No

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### SECTION 16: Other information

Text of phrases referred to under heading 3:

- R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- R32 Contact with acids liberates very toxic gas.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R50 Very toxic to aquatic organisms.
- R53 May cause long-term adverse effects in the aquatic environment.

H330 Fatal if inhaled.

H310 Fatal in contact with skin.

H300 Fatal if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold
- CCNL - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

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ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.