



Safety Data Sheet dated 23/7/2015, version 1

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

- 1.1. Product identifier
Mixture identification:
Trade name: GT4PINK
Trade code: AP032-153
- 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:
info@legor.com
- 1.4. Emergency telephone number
Centro Antiveleni
Ospedale di Niguarda "Ca Grande"
Piazza Ospedale Maggiore 3
20162 Milano
Telephone: +39 (0) 2/66 10 10 29
Telefax: +39 (0) 2/64 44 27 68
Italiano (French, English)
(24-hour-service)

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP)
⚠ Warning, Acute Tox. 4, Harmful if swallowed.
⚠ Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.
Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.
- Adverse physicochemical, human health and environmental effects:
No other hazards
- 2.2. Label elements
Symbols:



- Warning
- Hazard statements:
H302 Harmful if swallowed.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements:
P264 Wash the hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

Safety Data Sheet

GT4PINK

P273 Avoid release to the environment.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/if you feel unwell.

P391 Collect spillage.

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

Special Provisions:

None

Contents:

Potassium dicyanoaurate

COPPER (II) SULPHATE PENTAHYDRATE

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

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number		Classification
>= 3% - < 5%	Citric acid	CAS:	5949-29-1	⚠ 3.3/2 Eye Irrit. 2 H319
		EC:	201-069-1	
>= 1% - < 3%	COPPER (II) SULPHATE PENTAHYDRATE	Index number:	029-004-00-0	⚠ 3.1/4/Oral Acute Tox. 4 H302
		CAS:	7758-99-8	⚠ 3.3/2 Eye Irrit. 2 H319
		EC:	231-847-6	⚠ 3.2/2 Skin Irrit. 2 H315
				⚠ 4.1/A1 Aquatic Acute 1 H400
				⚠ 4.1/C1 Aquatic Chronic 1 H410
>= 0.25% - < 0.5%	Potassium dicyanoaurate	CAS:	13967-50-5	⚠ 3.1/2/Inhal Acute Tox. 2 H330
		EC:	237-748-4	⚠ 3.1/2/Dermal Acute Tox. 2 H310
				⚠ 3.1/2/Oral Acute Tox. 2 H300
				⚠ 4.1/C1 Aquatic Chronic 1 H410
				EUH032

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.

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:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Give nothing to eat or drink.

Safety Data Sheet

GT4PINK

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

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:

Safety Data Sheet

GT4PINK

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

COPPER (II) SULPHATE PENTAHYDRATE - CAS: 7758-99-8

TLV TWA - 3 mg/m³

DNEL Exposure Limit Values

GT4PINK

Consumer: 0.041 mg/kg - Exposure: Human Oral - Frequency: Local chronic - Notes:

Copper (II) sulfate pentahydrate

Worker Professional: 137 mg/kg - Frequency: Chronic Systemic - Notes: Copper (II) sulfate pentahydrate

PNEC Exposure Limit Values

GT4PINK

Target: Fresh Water - Value: 0.44 mg/l - Type of hazard: Environmentally not effective limit - Notes:: Citric Acid Monohydrate

Target: Marine water - Value: 0.044 mg/l - Type of hazard: Environmentally not effective limit - Notes:: Citric Acid Monohydrate

Target: Freshwater sediments - Value: 3.46 mg/kg - Type of hazard: Environmentally not effective limit - Notes:: Citric Acid Monohydrate

Target: Marine water sediments - Value: 34.6 mg/kg - Type of hazard: Environmentally not effective limit - Notes:: Citric Acid Monohydrate

Target: Terrestrial compartment - Value: 33.1 mg/kg - Type of hazard: Environmentally not effective limit - Notes:: Citric Acid Monohydrate

8.2. Exposure controls

Eye protection:

Basket eye glasses.

Protection for skin:

Safety shoes.

Lab coat.

Protective apron.

Protection for hands:

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

Respiratory protection:

Container device with compressed air (DIN EN 137).

Mask with filter "B", grey colour

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Light Blue	--	--
Odour:	Odourless	--	--

Safety Data Sheet

GT4PINK

Odour threshold:	N.A.	--	--
pH:	5	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	N.A.	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	N.A.	--	--
Solubility in water:		--	--
Solubility in oil:		--	--
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

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

Safety Data Sheet

GT4PINK

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
None
- 10.4. Conditions to avoid
Stable under normal conditions.
- 10.5. Incompatible materials
None in particular.
- 10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

GT4PINK

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 481 mg/kg - Notes: Copper (II) sulfate pentahydrate

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Notes: Copper (II) sulfate pentahydrate

Test: LD50 - Route: Oral - Species: Rat 5400 mg/kg - Notes: Citric Acid Monohydrate

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Notes: Citric Acid Monohydrate

Toxicological information of the main substances found in the mixture:

COPPER (II) SULPHATE PENTAHYDRATE - CAS: 7758-99-8

COPPER(II) SULFATE PENTAHYDRATE: LD50 (Oral) = 482 mg/kg; LD50 (Skin) > 2000 mg/kg

If not differently specified, the information required in Regulation (EU)2015/830 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;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

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a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Oncorhynchus mykiss 0.016 mg/l - Duration h: 96 - Notes: Copper (II) Sulfate pentahydrate

Endpoint: EC50 - Species: Daphnia magna 0.18 mg/l - Duration h: 48 - Notes: Copper (II) Sulfate pentahydrate

Endpoint: EC50 - Species: 3 0.003 mg/l - Duration h: 72 - Notes: Copper (II) Sulfate pentahydrate

b) Aquatic chronic toxicity:

AP032-153/1

Page n. 6 of 9

Safety Data Sheet

GT4PINK

Endpoint: NOEC - Species: Algae 425 mg/l - Duration h: 192 - Notes: Citric Acid Monohydrate

12.2. Persistence and degradability

None

GT4PINK

Biodegradability: Readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: Citric Acid Monohydrate

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information



14.1. UN number

ADR-UN Number: 3082

IATA-UN Number: 3082

IMDG-UN Number: 3082

14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER (II) SULPHATE PENTAHYDRATE, Potassium dicyanoaurate)

IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER (II) SULPHATE PENTAHYDRATE, Potassium dicyanoaurate)

IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER (II) SULPHATE PENTAHYDRATE, Potassium dicyanoaurate)

14.3. Transport hazard class(es)

ADR-Class: 9

ADR - Hazard identification number: 90

IATA-Class: 9

IATA-Label: 9

IMDG-Class: 9

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

ADR-Environmental Pollutant: Yes

IMDG-Marine pollutant: Marine Pollutant

Most important toxic component: COPPER (II) SULPHATE PENTAHYDRATE

Safety Data Sheet

GT4PINK

- 14.6. Special precautions for user
- | | |
|------------------------------|-------------|
| ADR-Subsidiary risks: | - |
| ADR-S.P.: | 274 335 601 |
| ADR-Tunnel Restriction Code: | (E) |
| IATA-Passenger Aircraft: | 964 |
| IATA-Subsidiary risks: | - |
| IATA-Cargo Aircraft: | 964 |
| IATA-S.P.: | A97 A158 |
| IATA-ERG: | 9L |
| IMDG-EmS: | F-A , S-F |
| IMDG-Subsidiary risks: | - |
| IMDG-Storage category: | Category A |
| IMDG-Storage notes: | - |
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
N.A.

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
 - Dir. 2000/39/EC (Occupational exposure limit values)
 - 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) 2015/830
 - Regulation (EU) n. 286/2011 (ATP 2 CLP)
 - Regulation (EU) n. 618/2012 (ATP 3 CLP)
 - Regulation (EU) n. 487/2013 (ATP 4 CLP)
 - Regulation (EU) n. 944/2013 (ATP 5 CLP)
 - Regulation (EU) n. 605/2014 (ATP 6 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 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.
 - Regulation (EC) nr 648/2004 (detergents).
 - 1999/13/EC (VOC directive)
- Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):
N.A.
- 15.2. Chemical safety assessment
No

SECTION 16: Other information

Text of phrases referred to under heading 3:

- H319 Causes serious eye irritation.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H330 Fatal if inhaled.
- H310 Fatal in contact with skin.
- H300 Fatal if swallowed.
- EUH032 Contact with acids liberates very toxic gas.

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

Safety Data Sheet

GT4PINK

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

Insert here 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.

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.