Safety Data Sheet Primary Colour Solution Eu Phar - Yellow

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SECTION 1: Identification

GHS Product identifier

Product name	Primary Colour Solution Eu Phar - Yellow

Recommended use of the chemical and restrictions on use

Laboratory reagent.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 1
- Corrosive to metals, Cat. 1
- Skin corrosion/irritation, Cat. 2

GHS label elements, including precautionary statements

Pictograms

Signal word	**Danger**

Hazard statement(s)

H290	May be corrosive to metals
H315	Causes skin irritation
H318	Causes serious eye damage

Precautionary statement(s)

P234	Keep only in original packaging.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/soap
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physcian
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material-damage.
P406	Store in a corrosive resistant/… container with a resistant inner liner.

SECTION 3: Composition/information on ingredients

Mixtures

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

Component	Concentration
Iron(III) chloride (CAS no.: 7705-08-0; EC no.: 231-729-4)	**<= 5 % (weight)**
CLASSIFICATIONS: Corrosive to metals, Cat. 1; Acute toxicity, oral, Cat. 4; Serious eye damage/eye irritation, Cat. 1; Skin corrosion/irritation, Cat. 2. HAZARDS: H290 - May be corrosive to metals; H302 - Harmful if swallowed; H315 - Causes skin irritation; H318 - Causes serious eye damage.	
HYDROCHLORIC ACID (<37%) (CAS no.: 7647-01-0; EC no.: 231-595-7; Index no.: 017-002-01-X)	**<= 1 % (weight)**
CLASSIFICATIONS: Specific target organ toxicity following single exposure, Cat. 3; Skin corrosion/irritation, Cat. 1B. HAZARDS: H314 - Causes severe skin burns and eye damage; H335 - May cause respiratory irritation. [SCLs/M-factors/ATEs]: Skin Corr. 1B; H314: C ≥ 25 %; Skin Irrit. 2; H315: 10 % ≤ C < 25 %; Eye Irrit. 2; H319: 10 % ≤ C < 25 %; STOT SE 3; H335: C ≥ 10 %	

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once). First Aid Facilities: Maintain eyewash fountain and drench facilities in work area.
If inhaled	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
In case of skin contact	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

In case of eye contact	If in eyes, hold eyelids apart and flush eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.
If swallowed	If swallowed, do NOT induce vomiting.

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

Indication of immediate medical attention and special treatment needed, if necessary
For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.
Advice to Doctor: Treat symptomatically as for acids.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical
Material does not burn. Runoff may pollute waterways.

Special protective actions for fire-fighters
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, or confined areas. Cover with DRY earth, sand or other compatible, non-combustible material followed by a plastic sheet to minimize spreading or contact with rain. Use clean, non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.

SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling
Avoid ingestion and inhalation of gas/fumes/vapour/spray mist. Avoid contact with eyes, on skin, or clothing. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Keep container in a cool, well-ventilated area. Keep well closed and protected from direct sunlight and moisture. Do not store in metal containers.

Very corrosive to most metals. Rubber-lined steel, Haveg, Hastelby and tantalum, are the most commonly used corrosion-resistant materials of construction. Rubber, glass, plastic and ceramic ware are also resistant to corrosion.

Store at room temperature (15 to 25 °C recommended).

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls
Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection
Clean impervious clothing should be worn. Clothing for protection against
chemicals should comply with AS 3765 Clothing for Protection Against Hazardous
Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection
If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear, colourless to light yellow liquid.
Color	No data available.
Odor	Odourless to slight, characteristic, irritating odour.
Odor threshold	No data available.
Melting point/freezing point	Approximately 0 °C (based on data for water); weighted average: -2.32 °C (3%); -18 °C (10%).
Boiling point or initial boiling point and boiling range	Approximately 100 °C.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	For HCl solutions: 0.1 (1.0 N), 1.1 (0.1 N), 2.02 (0.01 N).
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Miscible (soluble) in all proportions. [13] Solubility in Organic Solvents: Soluble in alcohols, diethyl ether and benzene; insoluble in hydrocarbons.

Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	Essentially the same as water; 0.527 Pa (10%).
Evaporation rate	Essentially the same as water (0.36) (BuAc=1).
Density and/or relative density	Approximately 1.
Relative vapor density	Essentially the same as water (0.62).

Particle characteristics
No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

Reactivity
Reacts with incompatible materials

Chemical stability
Stable at normal temperatures, pressures and conditions of use or storage.

Possibility of hazardous reactions
Will corrode metals. Will produce toxic gases on contact with cyanides, sulphides etc.

Conditions to avoid
Metals and incompatible materials.

Incompatible materials
Metals, bases (e.g. sodium hydroxide, amines), aldehydes, epoxides, reducing agents, oxidizing agents, permanganates, explosives, acetylides, borides, carbides, silicides, cyanides, sulfides and phosphide.

Hazardous decomposition products
Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Ingestion: May cause burns to mouth, throat and stomach.

Inhalation: May be harmful if inhaled.

Skin corrosion/irritation
Liquid is slightly to highly irritating to skin and may cause burns.

Serious eye damage/irritation
Liquid is irritating to highly irritating to eyes and may cause scarring of the cornea (based on animal data). Vapour may cause eye irritation.

Respiratory or skin sensitization
Inhalation of product vapours may cause irritation of nose, throat and respiratory system and possible harmful corrosive effects to the respiratory system. Not expected to be a respiratory or skin sensitiser.

Germ cell mutagenicity
No human information is available. Questionable positive results reported in some short-term tests. Negative results in some in-vitro mammalian cell tests.

Not considered to be a mutagenic hazard.

Carcinogenicity
Not considered to be a carcinogenic hazard.

Hydrochloric acid [7647-01-0] is evaluated in the IARC Monographs (Vol. 54; 1992) as Group 3: Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
Not considered to be toxic to reproduction.

Specific target organ toxicity (STOT) - single exposure
Not expected to cause toxicity to a specific target organ.

Specific target organ toxicity (STOT) - repeated exposure
Not expected to cause toxicity to a specific target organ.

Aspiration hazard
Not expected to be an aspiration hazard.

Additional information

Iron(III) chloride: mouse LD50 intravenous 58mg/kg (58mg/kg) Yakugaku Zasshi. Journal of Pharmacy. Vol. 87, Pg. 677, 1967.
Link to PubMed
mouse LD50 oral 895mg/kg (895mg/kg) Kenkyu Nenpo--Tokyo-toritsu Eisei Kenkyusho. Annual Report of Tokyo Metropolitan Research Laboratory of Public Health. Vol. 27, Pg. 159, 1976.
rat LD50 oral 450mg/kg (450mg/kg) Gigiena i Sanitariya. For English translation, see HYSAAV. Vol. 39(5), Pg. 16, 1974.
women LDLo oral 4mL/kg (4mL/kg) LUNGS, THORAX, OR RESPIRATION: DYSPNEA

GASTROINTESTINAL: NAUSEA OR VOMITING Veterinary and Human Toxicology. Vol. 40, Pg. 31, 1998.

*TOXICITY:
typ. dose mode specie amount units other
LD50 orl mus 1278 mg/kg
LD50 ipr mus 68 mg/kg
LD50 ivn mus 142 mg/kg
LD50 orl rat 900 mg/kg
LD50 orl mus 440 mg/kg

*AQTX/TLM96: Not available

*SAX TOXICITY EVALUATION:
THR: HIGH-MODERATE via oral route; HIGH via intraperitoneal route.

*CARCINOGENICITY: Not available

*MUTATION DATA: Not available

*TERATOGENICITY:
Reproductive Data:

TDLo: itt-cat 12976 ug/kg (1D male)
TDLo: ivg-rat 29 mg/kg (1D pre)

*STANDARDS, REGULATIONS & RECOMMENDATIONS:
OSHA: Federal Register (1/19/89) and 29 CFR 1910.1000 Subpart Z
Transitional Limit: PEL-TWA 1 mg(Fe)/m3 [610]
ACGIH: TLV-TWA 1 mg(Fe)/m3 [610]
NIOSH Criteria Document: None
NFPA Hazard Rating: Health (H): None
Flammability (F): None
Reactivity (R): None

*OTHER TOXICITY DATA:
Standards and Regulations: DOT-Hazard: ORM-B; Label: None, anhydrous
DOT-Hazard: Corrosive material; Label: Corrosive
solution
Status: Reported in EPA TSCA Inventory, 1980
EPA TSCA Section 8(e) Status Report 8EHQ-0880-0358
Meets criteria for proposed OSHA Medical Records Rule

SECTION 12: Ecological information

Toxicity
The following applies to HCl in general: Harmful effect on aquatic organisms. Harmful effect due to pH shift. Does not cause biological oxygen deficit.

Persistence and degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
No data available.

Endocrine disrupting properties
No data available.

Other adverse effects
No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Packaging disposal
Dispose of as unused product.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)
UN Number: 3264
Class: 8
Packing Group: III
Proper Shipping Name: CORROSIVE LIQUID , ACIDIC, INORGANIC, N.O.S. (Contains Hydrochloric acid and Ferric Chloride)

Hazchem emergency action code (EAC)
2X

IMDG
UN Number: 3264
Class: 8
Packing Group: III
Proper Shipping Name: CORROSIVE LIQUID , ACIDIC, INORGANIC, N.O.S. (Contains Hydrochloric acid and Ferric Chloride)

IATA
UN Number: 3264
Class: 8
Packing Group: III
Proper Shipping Name: CORROSIVE LIQUID , ACIDIC, INORGANIC, N.O.S. (Contains Hydrochloric acid and Ferric Chloride)

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP
Poison Schedule: S5

SECTION 16: Other information

Further information/disclaimer
ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.