

Cyanotype

Emulsion to make cyanotypes.
To achieve deep blue prints.

BERGGER CYANOTYPE

1. Identification

Product identifier : BERGGER CYANOTYPE
Application : Emulsion for cyanotypes
Supplier : BERGGER SAS, Les plaines de Rejatas, 87260 Vicq-sur-Breuilh
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2. Hazards identification

Classification according to Regulation (EC) No 1272/2008

Part A (Ferric Ammonium Citrate)

Skin Irrit. 2 // H315 // Causes skin irritation
Eye Dam2A// H319 // Causes serious eye irritation.
Spec. Tox. // H335 // May cause respiratory irritation

Hazard pictograms



Signal word

Warning

Hazard-determining components of labelling

Ferric Ammonium Citrate

Hazard statements

H315 - Causes skin irritation
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation

Precautionary statements

P102 Keep out of reach of children.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302 + 352 If on skin: Wash with plenty of water...
P333 + 313 If skin irritation or a rash occurs: Get medical advice/attention.
P362 + 364 Take off contaminated clothing and wash it before reuse.

Part B (Potassium Ferricyanide)

Aqua Tox. 3 // H412 // Harmful to aquatic life with long-lasting effects

Hazard pictograms**Signal word**

Warning

Hazard-determining components of labelling

Ferricyanure Potassium

Hazard statements

H412 // Harmful to aquatic life with long-lasting effects

Precautionary statements

P273 Avoid release to the environment.

3. Composition/information on ingredients

Mixtures

Mixture of the substances listed below with harmless additions.

Dangerous components part A		
CAS: 1185-57-5	Ferric Ammonium Citrate Skin Irrit. 2; Eye Irrit 2, H319	ca. 25%

Dangerous components part B		
CAS: 237-722-2	Potassium Ferricyanide Skin Irrit. 2; Eye Irrit 2, H412	ca. 16%

4. First aid measures (*Parts A&B*)

General information

Instantly remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 24 hours after the accident.

After inhalation Unlikely route of exposure as the product does not contain volatile substances. Move the exposed person to fresh air at once. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

After skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Contact physician if irritation continues.

After eye contact Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

After swallowing NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Drink a few glasses of water or milk. Provide rest, warmth and fresh air. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.

5. Firefighting measures (*Parts A&B*)

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

Special hazards arising from the substance or mixture Can be released in case of fire

No data available

Advice for firefighters

Protective equipment

Do not inhale explosion gases or combustion gases.

Wear self-contained breathing apparatus.

6. Accidental release measures (*Parts A&B*)

Personal precautions, protective equipment and emergency procedures

Wear protective clothing.
Avoid causing dust.

Environmental precautions:

Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.

Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to item 13.

Reference to other sections

See Section 8 for information on personal protection equipment.

7. Handling and storage (*Parts A&B*)

Precautions for safe handling

Open and handle container with care.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and containers: No special requirements.

Information about storage in one common storage facility:

Keep away from foodstuffs, beverages and food.

Further information about storage conditions:

Store in closed original container in a dry place. Store under well-ventilated conditions at a temperature below 25°C.

Storage class Chemical storage

Specific end use(s) No further relevant information available.

8. Exposure controls/personal protection (*Parts A&B*)

Exposure controls

General protective and hygienic measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing.

Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Do not eat, drink or smoke while working.

Personal protective equipment

Breathing equipment: Not required.

Protection of hands:

Protective gloves. The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.

This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

Only use chemical-protective gloves with CE-labelling of category III.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Penetration time of glove material

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Synthetic gloves

Value for permeation: Level:

>= 3 (60 min)

Not suitable are gloves made of the following materials:

Natural rubber, NR

Eye protection: Tightly sealed safety glasses or face shield.

Body protection: Protective work clothing.

9. Physical and chemical properties

Part A (Ferric Ammonium Citrate)

Information on basic physical and chemical properties	
Appearance	
Form	Liquid
Colour	Brownish yellow
Odour	-
pH Value at 25°C	4,6
Boiling point / Boiling Range	not determinated
Ignition temperature	not determinated
Self-inflammability	not determinated
Danger of explosion	Product is not explosive.
Density at 20 °C	not determinated
Solubility in / Miscibility with	
Water	miscible
Other information	No further relevant information available.

Part B (Potassium Ferricyanide)

Information on basic physical and chemical properties	
Appearance	
Form	Liquid
Colour	Yellow
Odour	-
pH Value at 25°C	7,9
Boiling point / Boiling Range	not determinated
Ignition temperature	not determinated
Self-inflammability	not flammable
Danger of explosion	Product is not explosive.
Density at 20 °C	not determinated
Solubility in / Miscibility with	
Water	miscible
Other information	No further relevant information available.

10. Stability and reactivity

Part A (Ferric Ammonium Citrate)

Reactivity : Not available

Chemical stability

Decomposes on exposure to light.
Stable under recommended storage conditions.

Possibility of hazardous reactions No hazardous reactions when handled and stored according to provisions.

Conditions to avoid : Light and heat

Materials to avoid : Strong oxidizing agents

Hazardous decomposition products: Carbon oxides, nitrogen oxides, iron oxides

Part B (Potassium Ferricyanide)

Reactivity : Not available

Chemical stability

Decomposes on exposure to light.

Possibility of hazardous reactions Possible hazardous reactions with strong acids, oxidizing agents, nitrites, hydrogen chloride gas

Conditions to avoid : Light and heat

Materials to avoid : Strong acids, oxidizing agents, nitrites, hydrogen chloride gas

Hazardous decomposition products: hydrogen cyanide, nitrites gas

11. Toxicological information

Part A (*Ferric Ammonium Citrate*)

Information on toxicological effects

This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Acute toxicity LD/LC50 values that are relevant for classification:		
Acid citric		
Oral	LD50	>2.000 mg/kg (rat)

Additional toxicological information:

Contact may cause irritation or rash, particularly with moist skin.

May cause eye irritation with redness, tearing, and abrasion.

Irritation, nausea, vomiting, diarrhea, hypermotility in case of ingestion

Part B (*Potassium Ferricyanide*)

Information on toxicological effects

This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Acute toxicity LD/LC50 values that are relevant for classification:		
Acid citric		
Oral	LD50	>3.613 mg/kg (rat)

Additional toxicological information:

Nausea, Diarrhea, in case of ingestion

Mild mucosal irritation in case of inhalation

12. Ecological informations

Part A (Ferric Ammonium Citrate)

Toxicity : LC0 - Fundulus heteroclitus - 200 mg/l - 7 d

Persistence and degradability : Not determined

Bioaccumulative potential : Not determined

Behaviour in environmental systems : Not determined

Mobility in soil : No further relevant information available.

Ecotoxic effects : No further relevant information available.

Other adverse effects : No further relevant information available.

Toxicity

CL50 Poecilia reticulata (Guppie): 19 mg/l; 96 h

CE50 Daphnia magna : 32 mg/l; 96 h

IC10 Desmodesmus subspicatus : 0,2 mg/l; 4 jr (IUCLID)

EC10 Pseudomonas fluorescens: > 1.000 mg/l; 24 h

Persistence and degradability : Not determined

Bioaccumulative potential : Not determined

Behaviour in environmental systems : Not determined

Mobility in soil : No further relevant information available.

Ecotoxic effects : No further relevant information available.

Other adverse effects : No further relevant information available.

13. Disposal considerations

Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Must be specially treated under adherence to official regulations.

Uncleaned packagings

Recommendation:

Non contaminated packagings can be used for recycling.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Recommended cleaning agent: Water, if necessary with cleaning agent.

14. Transport information

Not applicable

15. Regulatory information

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

Legislative Decree. 02/03/1997 n. 52 (Classification, packaging and labeling of dangerous substances). Legislative Decree 14/03/2003 n. 65 (Classification, packaging and labeling of dangerous substances). Legislative Decree. 02/02/2002 n. 25 (Risks related to chemical agents at work). D.M. 26/02/2004 Work (Exposure Limits Professional); D.M. 03/04/2007 (Implementation of Directive n. 2006/8 / EC). Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No. 1272/2008 (CLP), Regulation (EC) 790 / 2009.D.Lgs. September 21, 2005 n. 238 (Servo Ter).

16. Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing data specification sheet:

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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

Sources

applicable EEC directives: 1907/2006, 1272/2008