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Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

Date 01.10.2016 Version 1.0

CHLOROPHYLLIN powder

1. Identification of the substance/preparation and the company

Trade name: Chlorophyllin powder

Utilisation: Raw material for cosmetics, fragrances, colourant agent

Supplier company Elemental SRL, Piata Cazarmii no.15, 410188-Oradea, jud.Bihor, Romania

identification: Tel/Fax: +40259-436.755, www.elemental.eu

Emergency: RO: numar national pentru cazuri de urgenta: 021 3183606 Institutul de Sanatate

Publica Bucuresti. International emergency number: +49 180 2273-112

2. Hazards Identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Adverse physicochemical, human health and environmental effects: No other hazards

2.2. Label elements

Symbols: None Hazard statements: None Precautionary statements: None Special Provisions: None

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

3. Composition / Information on ingredients

3.1. Substances

Identification of the substance: Chemical characterization: CHLOROPHYLLIN PURE E141

3.2. Mixtures: N.A.

Denominazione INCI: C.I.75810 Colour Index C.I.75815

CAS number: 11006-34-1 EC number: 234-242-5

4. First Aid

4.1. Description of first aid measures

In case of skin contact: Wash with plenty of water and soap.

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: Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION

IMMEDIATELY.

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

Treatment: None

5. Fire-fighting 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.

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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.

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.

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. Contamined 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: None in particular. Instructions as regards storage premises: Adequately ventilated premises.

7.3. Specific end use(s): None in particular

8. Exposure Controls and 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: No special precaution must be adopted for normal use.

Protection for hands: Not needed for normal use. Respiratory protection: Not needed for normal use.

Thermal Hazards: None

Environmental exposure controls: None Appropriate engineering controls: None

9. Physical and Chemical Properties

Appearance and colour: hygrascopic powder, dark grey to dark bleu

Odour: inodore
Odour threshold: N.A.

Assay % as Sodium Salt of Copper Chlorophyll: 95 - 105

pH: 1 % (p/v) 9.5 - 11

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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: soluble
Solubility in oil: insoluble
Solubility in ethanol: insoluble

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.

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

11. Toxicological Information

11.1. Information on toxicological effects

Toxicological information of the substance: N.A.

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

12. Ecological Information

12.1. Toxicity

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

12.2. Persistence and degradability N.A.

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- 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

13. Disposal Considerations

13.1. Waste treatment methods

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

14. Transport Information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

- 14.2. UN proper shipping name N.A.
- 14.3. Transport hazard class(es) N.A.
- 14.4. Packing group N.A.
- 14.5. Environmental hazards N.A.
- 14.6. Special precautions for user N.A.
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code N.A.

15. Additional 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) n. 453/2010 (Annex II)

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

16. Other Information

Abreviations:

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.

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EINECS: European Inventory of Existing Commercial Chemical Substances.

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.

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.

Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.