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Revision nr. 5 Dated 24/07/2017

MARINE COLLAGEN PF

Printed on 24/07/2017

| | Safety data s | heet |
|--|---|---|
| SECTION 1. Identification of the subs | stance/mixture and o | f the company/undertaking |
| 1.1. Product identifier Code: Product name | 1079 MARINE COLLAGEN PF | |
| 1.2. Relevant identified uses of the substance or m Intended use 3% Aqueous solution | nixture and uses advised aga of Marine Collagen preserv | |
| Identified Uses | Industrial | Professional Consumer |
| Raw material for cosmetics | × | |
| 1.3. Details of the supplier of the safety data sheet Name Full address District and Country | I.R.A. ISTITUTO RICERCHE Via del Lavoro 4a/6 20865 Usmate Velate (MB) Italia Tel. +39-(0)39-63174.1 | APPLICATE SRL |
| | Fax +39-(0)39-6755409 | |
| e-mail address of the competent person responsible for the Safety Data Sheet | regolatorio@iralab.it | |
| 1.4. Emergency telephone number For urgent inquiries refer to | Centro antiveleni Milano Ni | guarda - Tel +39 02/66101029 |
| SECTION 2. Hazards identification | | |
| 2.1. Classification of the substance or mixture | | |
| The product is classified as hazardous pursuant to the supplements). The product thus requires a safety datase Any additional information concerning the risks for healt | neet that complies with the pro | Regulation 1272/2008 (CLP) (and subsequent amendments and visions of EC Regulation 1907/2006 and subsequent amendments. jiven in sections 11 and 12 of this sheet. |
| Hazard classification and indication: Eye irritation, category 2 | H319 | Causes serious eye irritation. |
| 2.2. Label elements | | |
| Hazard labelling pursuant to EC Regulation 1272/2008 | (CLP) and subsequent amend | ments and supplements. |
| Hazard pictograms: | | |
| | | |
| Signal words: Warning | | |
| Hazard statements: | | |
| H319 Causes serious eye irritation | on. | |
| Precautionary statements: | | |



MARINE COLLAGEN PF

Revision nr. 5

Dated 24/07/2017

Printed on 24/07/2017

Page n. 2/9

P280 P337+P313 Wear eye protection / face protection. If eye irritation persists: Get medical advice / attention.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

The full wording of hazard (H) phrases is given in section 16 of the sheet.

| Identification | x = Conc. % | Classification 1272/2008 (CLP) |
|--------------------------------------|-------------|--|
| Octane-1,2-diol | | |
| CAS 1117-86-8 | 1 ≤ x < 5 | Skin Irrit. 2 H315 |
| EC 214-254-7 | | |
| INDEX - | | |
| Reg. no. 01-2119966905-22-0002 | | |
| 1,2-Propanediol, 3-(2-ethylhexyloxy) | | |
| CAS 70445-33-9 | 1≤x< 3 | Acute Tox. 4 H332, Eye Dam. 1 H318, Aquatic Chronic 3 H412 |
| EC 408-080-2 | | |
| INDEX - | | |
| DL-hexane-1,2-diol | | |
| CAS 6920-22-5 | 1 ≤ x < 5 | Eye Irrit. 2 H319 |
| EC 230-029-6 | | |
| INDEX - | | |
| Reg. no. 01-2119987321-35-0000 | | |
| | | |

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures



Revision nr. 5 Dated 24/07/2017

MARINE COLLAGEN PF

Printed on 24/07/2017

Page n. 3/9

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Keep away from aromatic substances. Store the containers sealed, in a well ventilated place, away from direct sunlight at a temperature below 25°C. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection



Revision nr. 5

Dated 24/07/2017 Printed on 24/07/2017

MARINE COLLAGEN PF

Page n. 4/9

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties



Revision nr. 5 Dated 24/07/2017

MARINE COLLAGEN PF

Printed on 24/07/2017

Page n. 5/9

| Decomposition temperature Viscosity Explosive properties Oxidising properties | Not available Not available Not available Not available | |
|--|--|--|
| | | |

9.2. Other information

Dry residue

≥4%

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

None.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological

11.1. Information on toxicological effects

effects of exposure to the product.

Metabolism, toxicokinetics, mechanism of action and other information Information not available Information on likely routes of exposure Information not available Delayed and immediate effects as well as chronic effects from short and long-term exposure Information not available Interactive effects Information not available ACUTE TOXICITY LC50 (Inhalation) of the mixture:> 20 mg/l LD50 (Oral) of the mixture:Not classified (no significant component) LD50 (Dermal) of the mixture:Not classified (no significant component) LD50 (Dermal) of the mixture:Not classified (no significant component) ACUTE TOXICITY ACUTE TOXICITY DC50 (Dermal) of the mixture:Not classified (no significant component) ACUTE TOXICITY ACUTE

> 2000 mg/kg Rat LD50 (Oral) > 2000 mg/kg Rat LD50 (Dermal)



Revision nr. 5 Dated 24/07/2017



MARINE COLLAGEN PF

Printed on 24/07/2017

Page n. 6/9

SKIN CORROSION / IRRITATION Does not meet the classification criteria for this hazard class SERIOUS EYE DAMAGE / IRRITATION Causes serious eye irritation RESPIRATORY OR SKIN SENSITISATION Does not meet the classification criteria for this hazard class GERM CELL MUTAGENICITY Does not meet the classification criteria for this hazard class CARCINOGENICITY Does not meet the classification criteria for this hazard class REPRODUCTIVE TOXICITY Does not meet the classification criteria for this hazard class STOT - SINGLE EXPOSURE Does not meet the classification criteria for this hazard class STOT - REPEATED EXPOSURE Does not meet the classification criteria for this hazard class ASPIRATION HAZARD Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

| | 12.1. Toxicity | |
|---|---|---|
| | POLY(2-PROP-ENAMIDE) | |
| | EC50 - for Algae / Aquatic Plants | > 100 mg/l/72h |
| | 1,2-PROPANEDIOL, 3-(2-ETHYLHEXYLOXY) | |
| | LC50 - for Fish | 60.2 mg/l/96h Brachydanio rerio |
| | EC50 - for Crustacea | 78.3 mg/l/48h Daphnia magna |
| | 12.2. Persistence and degradability | |
| | POLY(2-PROP-ENAMIDE) | |
| | NOT rapidly degradable | |
| | 1,2-PROPANEDIOL, 3-(2-ETHYLHEXYLOXY) | |
| | Entirely degradable | |
| | 12.3. Bioaccumulative potential | |
| | Information not available | |
| | 12.4. Mobility in soil | |
| | Information not available | |
| | 12.5. Results of PBT and vPvB assessment | |
| | On the basis of available data, the product does not co | ontain any PBT or vPvB in percentage greater than 0,1%. |
| | 12.6. Other adverse effects | |
| | Information not available | |
| | SECTION 13. Disposal consideratio | ns |
| [| | |



MARINE COLLAGEN PF

Revision nr. 5

Dated 24/07/2017

Printed on 24/07/2017

Page n. 7/9

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

3

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product Point

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)



Revision nr. 5

MARINE COLLAGEN PF

Dated 24/07/2017

Printed on 24/07/2017 Page n. 8/9

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| Acute Tox. 4 | Acute toxicity, category 4 |
|-------------------|--|
| Eye Dam. 1 | Serious eye damage, category 1 |
| Eye Irrit. 2 | Eye irritation, category 2 |
| Skin Irrit. 2 | Skin irritation, category 2 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 |
| H332 | Harmful if inhaled. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H412 | Harmful to aquatic life with long lasting effects. |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
 PEC: Predicted environmental Concentration
- PEC: Predicted environmental
- PNEC: Predicted exposure level - PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

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MARINE COLLAGEN PF

Revision nr. 5 Dated 24/07/2017

Printed on 24/07/2017

Page n. 9/9

TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

TWA STEL: Short-term exposure limit

TWA: Time-weighted average exposure limit

VOC: Volatile organic Compounds

vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation

WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament

2. Regulation (EC) 1272/2008 (CLP) of the European Parliament

3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament 4. Regulation (EU) 2015/830 of the European Parliament

5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament

6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament

8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament

9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament

11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition

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INRS - Fiche Toxicologique (toxicological sheet)

Patty - Industrial Hygiene and Toxicology

N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

IFA GESTIS website

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Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

03