**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product information**

|  |  |  |
| --- | --- | --- |
| **Product name** | **:** | MMCD Probiotic APC LemonVrbna Bulk |
| **Recommended use** | : | Experimental Formula |
| **Restrictions on use** | : | Use only as directed on label |
| **Manufacturer, importer, supplier** | : | Caldrea  1525 Howe Street  Racine  WI 53403-2236 |

|  |  |  |
| --- | --- | --- |
| **Telephone** | : | +1-800-558-5252 |

|  |  |  |
| --- | --- | --- |
| **Emergency telephone number** | : | 24 Hour Medical Emergency Phone: (866)231-5406  24 Hour Transport Emergency Phone: (800)424-9300 |

**2. HAZARDS IDENTIFICATION**

**Classification of the substance or mixture**

**Globally Harmonized System (GHS) Classification**

This product does not meet the criteria for classification in any hazard class according to regulation OSHA 29 CFR 1910.1200.

**Labelling**

**Precautionary statements**

|  |  |  |
| --- | --- | --- |
| **Other hazards** | : | None identified |

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

|  |  |  |
| --- | --- | --- |
| Chemical name | CAS-No. | Weight percent |
| Alkyl polyglycoside | 68515-73-1 | 1.00 - 5.00 |

|  |  |  |
| --- | --- | --- |
| Lactic Acid | 79-33-4 | 0.10 - 1.00 |

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.caldrea.com.

**4. FIRST AID MEASURES**

**Description of first aid measures**

|  |  |  |
| --- | --- | --- |
| **Eye contact** | : | No special requirements |
| **Skin contact** | : | No special requirements |
| **Inhalation** | : | No special requirements. |
| **Ingestion** | : | No special requirements |

**Most important symptoms and effects, both acute and delayed**

|  |  |  |
| --- | --- | --- |
| Eyes | : | No adverse effects expected when used as directed. |
| Skin effect | : | No adverse effects expected when used as directed. |
| Inhalation | : | No adverse effects expected when used as directed. |
| Ingestion | : | No adverse effects expected when used as directed. |

**Indication of any immediate medical attention and special treatment needed**

See Description of first aid measures unless otherwise stated.

**5. FIREFIGHTING MEASURES**

|  |  |  |
| --- | --- | --- |
| **Suitable extinguishing media** | : | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |

|  |  |  |
| --- | --- | --- |
| **Specific hazards during firefighting** | : | Container may melt and leak in heat of fire. |

|  |  |  |
| --- | --- | --- |
| **Further information** | : | Fight fire with normal precautions from a reasonable distance. Standard procedure for chemical fires. Wear full protective clothing and positive pressure self-contained breathing apparatus. |

**6. ACCIDENTAL RELEASE MEASURES**

|  |  |  |
| --- | --- | --- |
| **Personal precautions** | : | Wash thoroughly after handling. |
| **Environmental precautions** | : | Outside of normal use, avoid release to the environment. |

|  |  |  |
| --- | --- | --- |
| **Methods and materials for containment and cleaning up** | : | Dike large spills.  Clean residue from spill site. |

**7. HANDLING AND STORAGE**

**Handling**

|  |  |  |
| --- | --- | --- |
| **Precautions for safe handling** | : | Avoid contact with skin, eyes and clothing.  For personal protection see section 8.  KEEP OUT OF REACH OF CHILDREN AND PETS. |
| **Advice on protection against fire and explosion** | : | Normal measures for preventive fire protection. |

**Storage**

|  |  |  |
| --- | --- | --- |
| **Requirements for storage areas and containers** | : | Keep container closed when not in use. |

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational Exposure Limits**

ACGIH or OSHA exposure limits have not been established for this product or reportable ingredients unless noted in the table above.

**Personal protective equipment**

|  |  |  |
| --- | --- | --- |
| **Respiratory protection** | : | No special requirements. |
| **Hand protection** | : | No special requirements. |
| **Eye protection** | : | No special requirements. |
| **Skin and body protection** | : | No special requirements. |
| **Hygiene measures** | : | Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. |

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|  |  |  |
| --- | --- | --- |
| **Form** | : | liquid |
| **Color** | : | natural colour |
| **Odour** | : | Citrus |

|  |  |  |
| --- | --- | --- |
| **Odour Threshold** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **pH** | : | 5.5  at (25 C)  (undiluted) |

|  |  |  |
| --- | --- | --- |
| **Melting point/freezing point** | : | 0 °C |

|  |  |  |
| --- | --- | --- |
| **Initial boiling point and boiling range** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Flash point** | : | does not flash |

|  |  |  |
| --- | --- | --- |
| **Evaporation rate** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Flammability (solid, gas)** | : | Does not sustain combustion. |

|  |  |  |
| --- | --- | --- |
| **Upper/lower flammability or explosive limits** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Vapour pressure** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Vapour density** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Relative density** | : | 1.003 g/cm3  at  25 Csimilar to water |

|  |  |  |
| --- | --- | --- |
| **Solubility(ies)** | : | soluble |

|  |  |  |
| --- | --- | --- |
| **Partition coefficient: n-octanol/water** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Auto-ignition temperature** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Decomposition temperature** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Viscosity, dynamic** | : | 32.02 mPa.s  at 25 °C |

|  |  |  |
| --- | --- | --- |
| **Viscosity, kinematic** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **Oxidizing properties** | : | Test not applicable for this product type |

|  |  |  |
| --- | --- | --- |
| **Volatile Organic Compounds**  **Total VOC (wt. %)\*** | : | 0.2 % - additional exemptions may apply  \*as defined by US Federal and State Consumer Product Regulations> |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **Other information** | : | None identified | : | Test not applicable for this product type |

**10. STABILITY AND REACTIVITY**

|  |  |  |
| --- | --- | --- |
| **Reactivity** | : | No dangerous reaction known under conditions of normal use. |

|  |  |  |
| --- | --- | --- |
| **Chemical stability** | : | Stable under recommended storage conditions. |

|  |  |  |
| --- | --- | --- |
| **Possibility of hazardous reactions** | : | If accidental mixing occurs and toxic gas is formed, exit area immediately. Do not return until well ventilated. |

|  |  |  |
| --- | --- | --- |
| **Conditions to avoid** | : | Direct sources of heat. |

|  |  |  |
| --- | --- | --- |
| **Incompatible materials** | : | Do not mix with bleach or any other household cleaners.  Strong bases |

|  |  |  |
| --- | --- | --- |
| **Hazardous decomposition products** | : | Thermal decomposition can lead to release of irritating gases and vapours. |

**11. TOXICOLOGICAL INFORMATION**

|  |  |  |
| --- | --- | --- |
| **Acute oral toxicity** | : | LD50 > 5000 mg/kg |

|  |  |  |
| --- | --- | --- |
| **Acute inhalation toxicity** | : | LC50 > 10  mg/L |

|  |  |  |
| --- | --- | --- |
| **Acute dermal toxicity** | : | LD50 > 5000 mg/kg |

|  |  |  |
| --- | --- | --- |
| **GHS Properties** | **Classification** | **Routes of entry** |

|  |  |  |
| --- | --- | --- |
| Acute toxicity | No classification proposed | Oral |

|  |  |  |
| --- | --- | --- |
| Acute toxicity | No classification proposed | Dermal |

|  |  |  |
| --- | --- | --- |
| Acute toxicity | No classification proposed | Inhalation - Dust and Mist |

|  |  |  |
| --- | --- | --- |
| Acute toxicity | No classification proposed | Inhalation - Vapour |

|  |  |  |
| --- | --- | --- |
| Acute toxicity | No classification proposed | Inhalation - Gas |

|  |  |  |
| --- | --- | --- |
| Skin corrosion/irritation | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Serious eye damage/eye irritation | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Skin sensitisation | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Respiratory sensitisation | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Germ cell mutagenicity | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Carcinogenicity | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Reproductive toxicity | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Specific target organ toxicity - single exposure | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Specific target organ toxicity - repeated exposure | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| Aspiration hazard | No classification proposed | - |

|  |  |  |
| --- | --- | --- |
| **Aggravated Medical Condition** | : | None known. |

**12. ECOLOGICAL INFORMATION**

**Product :** The product itself has not been tested.

**Toxicity**

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

**Toxicity to fish**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Components** | **End point** | **Species** | **Value** | **Exposure time** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Alkyl polyglycoside | semi-static test LC50 | Danio rerio (zebra fish) | 126 mg/l | 96 h |
|  | semi-static test NOEC Read-across (Analogy) | Danio rerio (zebra fish) | 1.8 mg/l | 28 d |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lactic Acid | static test LC50 | Oncorhynchus mykiss (rainbow trout) | 100 - 180 mg/l | 96 h |
|  |  |  |  |  |

**Toxicity to aquatic invertebrates**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Components** | **End point** | **Species** | **Value** | **Exposure time** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Alkyl polyglycoside | static test EC50 | Daphnia magna (Water flea) | > 100 mg/l | 48 h |
|  | semi-static test NOEC Read-across (Analogy) | Daphnia magna | 1 mg/l | 21 d |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lactic Acid | static test EC50 | Daphnia magna (Water flea) | 130 mg/l | 48 h |
|  |  |  |  |  |

**Toxicity to aquatic plants**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Components** | **End point** | **Species** | **Value** | **Exposure time** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Alkyl polyglycoside | static test EC50 | Desmodesmus subspicatus (green algae) | 27.22 mg/l | 72 h |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lactic Acid | static test EC50 | Pseudokirchneriella subcapitata (green algae) | > 2,800 mg/l | 72 h |

**Persistence and degradability**

|  |  |  |  |
| --- | --- | --- | --- |
| **Component** | **Biodegradation** | **Exposure time** | **Summary** |

|  |  |  |  |
| --- | --- | --- | --- |
| Alkyl polyglycoside | 100 % | 28 d | Readily biodegradable. |
| Lactic Acid | 67 % | 20 d |  |

**Bioaccumulative potential**

|  |  |  |
| --- | --- | --- |
| **Component** | **Bioconcentration factor (BCF)** | **Partition Coefficient n-Octanol/water (log)** |

|  |  |  |
| --- | --- | --- |
| Alkyl polyglycoside | 0.9 estimated | 1.72 |

|  |  |  |
| --- | --- | --- |
| Lactic Acid | No data available | -0.62 |

**Mobility**

|  |  |  |
| --- | --- | --- |
| **Component** | **End point** | **Value** |

|  |  |  |
| --- | --- | --- |
| Alkyl polyglycoside | log Koc | 1.7 |

|  |  |  |
| --- | --- | --- |
| Lactic Acid | log Koc | < 1.32 |

**PBT and vPvB assessment**

|  |  |
| --- | --- |
| **Component** | **Results** |
| Alkyl polyglycoside | Not fulfilling PBT and vPvB criteria |
| Lactic Acid | Not fulfilling PBT and vPvB criteria |

|  |  |  |
| --- | --- | --- |
| **Other adverse effects** | **:** | None known. |

**13. DISPOSAL CONSIDERATIONS**

Consumer may discard empty container in trash, or recycle where facilities exist.

**14. TRANSPORT INFORMATION**

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

**Land transport**

Not classified as dangerous in the meaning of transport regulations.

**Sea transport**

Not classified as dangerous in the meaning of transport regulations.

**Air transport**

Not classified as dangerous in the meaning of transport regulations.

**15. REGULATORY INFORMATION**

|  |  |  |
| --- | --- | --- |
| **Notification status** | : | All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory. |
| **California Prop. 65** | : | This product is not subject to the reporting requirements under California's Proposition 65. |

**16. OTHER INFORMATION**

**HMIS Ratings**

|  |  |
| --- | --- |
| **Health** | 0 |
| **Flammability** | 0 |
| **Reactivity** | 0 |

**NFPA Ratings**

|  |  |
| --- | --- |
| **Health** | 0 |
| **Fire** | 0 |
| **Reactivity** | 0 |
| **Special** | - |

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

**Further information**

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

|  |  |
| --- | --- |
| Prepared by | Global Safety Assessment & Regulatory Affairs (GSARA) |