##### SAFETY DATA SHEET

**Regulation :** In accordance with Regulation (EU) 2015/830 (REACH), Annex II

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

#### 1.1 Product identifier

**Product name** : Lemon patch

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

#### Recommended use of the chemical and restrictions on use

Recommended use : Floor Patch (Health Aid Product)

Restrictions on use : Don't ingest and inhale

#### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Company name : KJI Industrial CO., LTD.

Address : 29, Gyeseok-ro, Dong-myeon, Yangsan-si, Gyeongsangnam-do, Republic of Korea

Telephone number : +82-55-383-9975

Respondent : Quality Assurance Officer

Fax : +82-55-383-9978

#### 1.4 Emergency Telephone : +82-55-383-9975

**SECTION 2 : HAZARDS IDENTIFICATION**

#### 2.1 Classification of the substance or mixture

is classified according to Regulation (EC) No 1272/2008 [CLP]

**2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP] :**

Not classified

**2.1.2 Additional information :**

For full text of Hazard- and EU Hazard-statements: see SECTION 16

#### 2.2 Label elements

**Hazard pictograms :** Not applicable

**Signal word :** Not applicable

**Hazard statement :** Not applicable

**Additional precautionary statements :** Not applicable

#### 2.3 Other hazards

No information available

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1 Mixture

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Chemical Name** | **Common Name**  **(Synonyms)** | **CAS Number** | **EC number** | **Content (%)** | **Classification according to  Regulation (EC) No  1278/2008 (CLP)** |
| D-Sorbitol | Cholaxine | 50-70-4 | 200-061-5 | 52.00~64.00 | Not classified |
| Starch | Amylum | 9005-25-8 | 232-679-6 | 24.00~30.00 | Not classified |
| High-Purity Silica | Silicon dioxide | 7631-86-9 | 231-545-4 | 4.00~8.00 | Not classified |
| Perlite | Not available | 130885-09-5 | Not available | 0.72~2.72 | Not classified |
| Wood Vinegar | Creosote | 8021-39-4 | 232-419-1 | 0.72~2.72 | Not classified |
| Glycerine | Glycerol | 56-81-5 | 200-289-5 | 0.72~2.72 | Not classified |
| Eucalyptus Oil | Oil eucalyptus globulus or macarthuri | 8000-48-4 | Not available | 0.12~0.22 | Not classified |
| Tourmaline | Not available | 1317-93-7 | Not available | 0.10~0.50 | Not classified |
| Vitamin C | L-Ascorbic acid | 50-81-7 | 200-066-2 | 0.10~0.50 | Not classified |
| Artemisia princeps, ext. | Not available | 223747-95-3 | Not available | 0.01~0.05 | Not classified |
| Loquat, ext. | Not available | 91770-19-3 | 294-804-0 | 0.01~0.05 | Not classified |
| Zeolite | aluminosilicates, composed of silica (SiO2) and alumina (Al2O3) | 1318-02-1 | 215-283-8 | 0.50~1.50 | Not classified |
| Lemon  Essential Oil | - | 8008-56-8 | - | 0.10~0.30 | Not classified |
| Lemon Perfume | Business Secret | | | 1.00~3.00 | Not classified |

**SECTION 4 : FIRST-AID MEASURES**

#### 4.1 Description of first aid measures

General notes

Not available

Following eye contact :

- In case of contact with substance, immediately flush eyes with running water at least 20 minutes.

Following skin contact :

- In case of contact with substance, immediately flush skin with running water at least 20 minutes.

- Remove and isolate contaminated clothing and shoes.

- Wash contaminated clothing and shoes before reuse.

- Get immediate medical advice/attention.

Following inhalation :

- Specific medical treatment is urgent.

- Move victim to fresh air.

- Give artificial respiration if victim is not breathing.

- Administer oxygen if breathing is difficult.

Following ingestion :

- Do not let him/her eat anything, if unconscious.

- Get immediate medical advice/attention.

Self-protection of the first aider :

- Not available

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

Acute effects

- Not available

Delayed effects

- Not available

#### 4.3 Indication of immediate medical attention and special treatment needed

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**SECTION 5 : FIRE-FIGHTING MEASURES**

#### 5.1 Extinguishing media

**Suitable extinguishing media:**

- Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO2

**Unsuitable extinguishing media:**

- High pressure water streams

#### 5.2 Special hazards arising from the substance or mixture :

- May be ignited by heat, sparks or flames.

- Containers may explode when heated.

- Fire will produce irritating and/or toxic gases.

- If inhaled, may be harmful.

Hazardous combustion products : Not available

#### 5.3 Advice for firefighters

- Dike fire-control water for later disposal; do not scatter the material.

- Move containers from fire area if you can do it without risk.

- Fire involving Tanks; Cool containers with flooding quantities of water until well after fire is out.

- Fire involving Tanks; Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

- Fire involving Tanks; Always stay away from tanks engulfed in fire.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

#### 6.1 Personal precautions, protective equipment and emergency procedures

**6.1.1 For non-emergency personel**

Protective equipment :

- Use personal protective equipment, see Section 8

Emergency procedures:

- Stop leak if you can do it without risk.

- Please note that materials and conditions to avoid.

**6.1.2 For emergency responders**

- Eliminate all ignition sources.

- Ventilate the area.

- Do not touch or walk through spilled material.

- Prevent dust cloud.

#### 6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

#### 6.3 Methods and material for containment and cleaning up

**6.3.1 For containment**

- Large Spill; Dike far ahead of liquid spill for later disposal.

**6.3.2 For cleaning up**

- Small Spill; Flush area with flooding quantities of water. And take up with sand or other non-combustible absorbent material and place into containers for later disposal.

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

6.3.3 Other information

- Not available

#### 6.4 Reference to other sections

- See also sections 8 and 13 of the Safety Data Sheet.

**SECTION 7 : HANDLING AND STORAGE**

#### 7.1 Precautions for safe handling

Protective measures :

- Please note that materials and conditions to avoid.

- Wash thoroughly after handling.

- Please work with reference to engineering controls and personal protective equipment.

Measures to prevent fire :

- Be careful to high temperature.

Measures to protect the environment : Not available

Measures to prevent aerosol and dust generation : Not available

Advice on general occupational hygiene : Not available

#### 7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Not available

Packaging materials : Not available

Requirements for storage rooms and vessels :

- Store in a closed container.

- Store in cool and dry place.

Storage class

Further information on storage conditions : Not available

7.3 Specific end use(s)

Recommendations : Not available

Industrial sector specific solutions : Not available

**SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION**

#### 8.1 Control parameters

Occupational Exposure limits

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **ACGIH regulation** | **Biological exposure index** | **OSHA regulation** | **NIOSH regulation** | **EU regulation** |
| D-Sorbitol | Not available | Not available | Not available | Not available | Not available |
| Starch | TWA = 10 mg/m3 | Not available | TWA = 15 mg/m³ (Total dust), TWA = 5 mg/m3 (Respirable fraction) | TWA = 10 mg/m³ (total), TWA = 5 mg/m³ (resp) | Not available |
| High-Purity Silica | Not available | Not available | Not available | TWA = 6 mg/m³ | Not available |
| Perlite | Not available | Not available | Not available | Not available | Not available |
| Glycerine | Not available | Not available | TWA = 15 mg/m³ (Total dust), TWA = 5 mg/m3 (Respirable fraction) | Not available | Not available |
| Wood Vinegar | Not available | Not available | Not available | Not available | Not available |
| Tourmaline | Not available | Not available | Not available | Not available | Not available |
| Vitamin C | Not available | Not available | Not available | Not available | Not available |
| Artemisia princeps, ext. | Not available | Not available | Not available | Not available | Not available |
| Eucalyptus Oil | Not available | Not available | Not available | Not available | Not available |
| Loquat, ext. | Not available | Not available | Not available | Not available | Not available |
| Zeolite | Not available | Not available | Not available | Not available | Not available |
| Lemon Essential Oil | Not available | Not available | Not available | Not available | Not available |
| Lemon Perfume | Not available | Not available | Not available | Not available | Not available |

#### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls :

Substance/mixture related measures to prevent exposure during identified uses : Not available

Structural measures to prevent exposure : Not available

Organisational measures to prevent exposure : Not available

Technical measures to prevent exposure :

- Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

#### 8.2.2 Individual protection measures, such as personal protective equipment :

Eye and face protection :

- Wear facepiece with goggles to protect.

- An eye wash unit and safety shower station should be available nearby work place.

- Wear breathable safety goggles to protect from particulate material causing eye irritation or other disorder.

Skin protection :

(i) Hand protection :

- Wear appropriate protective gloves by considering physical and chemical properties of chemicals.

(ii) Other skin protection :

- Wear appropriate protective clothing by considering physical and chemical properties of chemicals.

Respiratory protection :

- Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles) respiratory protective equipment when necessary.

- In case exposed to particulate material, the respiratory protective equipments as follow are recommended. ;facepiece filtering respirator or air-purifying respirator, high-efficiency particulate air(HEPA) filter media or respirator equipped with powered fan, filter media of use (dust, mist, fume)

- In lack of oxygen (< 19.5%), wear the supplied-air respirator or self-contained oxygen breathing apparatus.

Thermal hazards : Not available

#### 8.2.3 Environmental exposure controls

Substance/mixture related measures to prevent exposure :

- Not available

Instruction measures to prevent exposure :

- Not available

Organisational measures to prevent exposure :

- Not available

Technical measures to prevent exposure :

- Not available

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1 Information on basic physical and chemical properties

Appearance

Description : Solid (Powder)

Color : Not available

Odor : A pastoral scent

Odor threshold : Not available

pH : Not available

Melting point/freezing point : Not available

Initial boiling point and boiling range : Not available

Flash point : Not available

Evaporation rate : Not available

Flammability (solid, gas) : Not available

Upper/lower flammability or explosive limits : Not available

Vapor pressure : Not available

Solubility (ies) : Non flammable (water)

Vapor density : Not available

Specific gravity : Not available

Partition coefficient: n-octanol/water : Not available

Auto ignition temperature : Not available

Decomposition temperature : Not available

Viscosity : Not available

Explosive properties : Not available

Oxidizing properties : Not available

Molecular weight : Not available

#### 9.2 Other information

Not available

**SECTION 10 : STABILITY AND REACTIVITY**

#### 10.1 Reactivity : Not available

#### 10.2 Chemical stability : Not available

#### 10.3 Possibility of hazardous reactions

- Fire may produce irritating and/or toxic gases

- Inhalation of material may be harmful

#### 10.4 Conditions to avoid

- Ignition sources (heat, sparks or flames)

#### 10.5 Incompatible materials

- Combustibles

#### 10.6 Hazardous decomposition products

- Irritating and/or toxic gases

**SECTION 11 : TOXICOLOGICAL INFORMATION**

#### 11.1 Information on toxicological effects

|  |  |
| --- | --- |
| (a) Acute toxicity; | **Oral :** **Not classified (ATEmix = 13,298 mg/kg)**  - **Wood Vinegar :** Rat LD50 = 870 mg/kg (female)  - **High-Purity Silica :** Rat LD50 > 5,000 mg/kg (OECD Guideline 401, GLP)  - **Glycerine :** Rat LD50 = 27,200 mg/kg  - **Eucalyptus Oil :** Rat LD50 = 2,480 mg/kg  - **Vitamin C :** Rat LD50 = 5,000 mg/kg  - **D-Sorbitol :** Rat LD50 = 15,900 mg/kg  **Dermal :** **Not classified (ATEmix = 78,448.44 mg/kg)**  - **High-Purity Silica :** Rabbit LD50 > 2,000 mg/kg  - **Glycerine :** Guinea pig LD50 = 56,750 mg/kg  - **Eucalyptus Oil :** Rabbit LD50 = 2,480 mg/kg  **Inhalation :** **Not classified**  - **High-Purity Silica :** Rat LC50 > 2.08 mg/L / 4 hr (OECD Guideline 403, GLP)  - **Glycerine :** Rat LC50 > 2.75 mg/L / 4 hr |
| (b) Skin Corrosion/ Irritation; | **Not classified**  - **Wood Vinegar :** Vapor condensation of creosote on skin or mucous membrane, or contact with skin causes local erythema, rash, burns and itching  **- High-Purity Silica :** In the skin irritation test using rabbits, skin irritations were not observed (OECD Guideline 404, GLP)  **- Glycerine :** In the skin irritation test with rabbits, skin irritations were not observed  **- Vitamin C :** In the skin irritation test using rabbits, skin irritations were not observed (OECD Guideline 404) |
| (c) Serious Eye Damage/ Irritation; | **Not classified**  **- Wood Vinegar :** Causing keratoconjunctivitis, loss of corneal epithelium, prolonged irritation and photophobia when creosote comes into contact with the eye  **- High-Purity Silica :** In the eyes irritation test using rabbits, the test material was not irritating (OECD Guideline 405, GLP)  **- Glycerine :** In the eyes irritation test with rabbits, eyes irritations were not observed  **- Vitamin C :** In the eyes irritation test using rabbits, the test material was not irritating (OECD Guideline 405) |
| (d) Respiratory sensitization; | Not available |
| (e) Skin Sensitization; | **Not classified**  **- Glycerine :** Skin sensitization tests on 420 patients with eczema did not show any irritation or sensitiveness to 419 people, but they did not prove it to one person who showed sensitivity |
| (f) Carcinogenicity; | **Not classified**  **- High-Purity Silica :** IARC - Group 3  **- Starch :** ACGIH - A4 (Not Classifiable as a Human Carcinogen) |
| (g) Mutagenicity; | **Not classified**  **- Wood Vinegar :** In vitro mutagenicity was shown because mutagenic aromatic hydrocarbons existed in Salmonella typhimurium TA1537, TA1538, TA98, TA100  **- High-Purity Silica :** Negative reaction was observed in vivo Mammalian Bone Marrow Chromosome Aberration Test. (OECD Guideline 475), Negative reactions were observed in vitro Bacterial Reverse Mutation Assay. (OECD Guideline 471, GLP)  **- Glycerine :** In vitro mammalian cell gene mutation test using Chinese hamster ovary showed negative for mutagenicity. (OECD Guideline 476)  **- Vitamin C :** In vitro-mouse lymphocyte cell / gene mutation test (GLP) : negative, HeLa Cells / UDS test (GLP) : positive, with or without metabolic activation, CHO Cells / Sister Chromatid Exchange Test (GLP) : Positive, with or without metabolic activation  In vivo-Chinese Hamster / Sister Chromatid Exchange Test (GLP) : negative, Mouse / micronucleus test (GLP) : negative |
| (h) Reproductive toxicity; | **Not classified**  **- High-Purity Silica :** In the reproductive toxicity test using fish and mammals, no reproductive toxicity was found (NOAEL > 75 mg/kg bw/day)  **- Glycerine :** Reproductive toxicity studies using rats (male / female) did not affect growth, fertility and fertility during the second generation. It also does not affect developmental toxicity. (NOAEL = 1310 mg/kg bw/day)  **- Vitamin C :** In the developmental toxicity / teratogenicity test using mouse, no toxicity was found (NOAEL = 1000 mg/kg / day)  **- D-Sorbitol :** Reproductive toxicity studies with rats showed no adverse effects on growth or fertility in any sex from three succesive generations of rats fed diets at levels up to 10% |
| (i) Specific target organ toxicity (single exposure); | **Not classified**  **- Wood Vinegar :** Fatalities have occurred 14-36 hr after the ingestion of about 7 g by adults or 1~2 g by children, Human toxicity indicates vomiting, diarrhea, dizziness and signs of pulmonary edema  **- High-Purity Silica :** In the acute toxicity (oral) test using rats, the test material was acutely non toxic. (OECD Guideline 401, GLP)  **- Glycerine :** Acute oral toxicity test in rats (male) showed body tremor and clonic convulsions prior to death  **- Vitamin C :** Diarrhea, nausea and headache symptoms when over-consuming 250 mg to 15 g of Vitamin C |
| (j) Specific target organ toxicity (repeat exposure); | **Not classified**  **- High-Purity Silica :** In the sub-chronic toxicity(oral) test with rats for 90 days, organ toxicity was not observed. (OECD Guideline 408, GLP)  **- Glycerine :** As a result of oral administration toxicity test for 90 days in rats (male/female), edema and hypertrophy of parenchymal cells were observed in male ingesting 20 % glycerol, and females generally showed symptoms only in liver (male: 18,750 mg/kg/day, female: 25,800 mg/kg/day) |
| (k) Aspiration Hazard; | Not available |

**SECTION 12 : ECOLOGICAL INFORMATION**

|  |  |
| --- | --- |
| 12.1 Toxicity |  |
| Acute toxicity | **Not classified (LC50 = 4.69 mg/L)**  **Fish :** **LC50 = 4.69 mg/L**  **- Wood Vinegar :** 96hr - LC50 (*Sheepshead minnows*) = 0.72 mg/L  **- High-Purity Silica :** 96hr - LC50 (*Fishes species*) = 1,033.016 mg/L ((Q)SAR)  **- Glycerine :** 96hr - LC50 (*Oncorhynchus mykiss*) = 54,000 mg/L  **- Eucalyptus Oil :** 96hr - LC50 (*Fish*) = 12.165 mg/L (estimated)  **- Vitamin C :** 96hr - LC50 (*Oncorhynchus mykiss*) = 1,020 mg/L  **Invertebrates :** **EC50 = 29 mg/L**  **Algae :** **E(r)C50 = 133.12 mg/L**  **- High-Purity Silica :** 96hr - EC50 (*Green Algae*) = 217.576 mg/L ((Q)SAR)  **- Eucalyptus Oil :** 96hr - EC50 (*Green Algae*) = 8.805 mg/L (estimated) |
| Chronic toxicity | **Not classified**  **Fish :** **Not classified**  **- High-Purity Silica :** 30day - NOEC (*Fishes species*) = 57.001 mg/L ((Q)SAR)  **Invertebrates :** **Not classified**  **- High-Purity Silica :** 30day - NOEC (*Daphnid species*) = 34.223 mg/L ((Q)SAR)  **Algae :** **Not classified**  **- High-Purity Silica :** 30day - NOEC (*Green Algae*) = 42.11 mg/L ((Q)SAR)  (*Pseudokirchneriella subcapitata*) = 4.6 mg/L (EU Method C.3, GLP) |
| 12.2 Persistence and Degradability | **Persistence :**  **- High-Purity Silica :** Low persistency (log Kow is less than 4 estimated.) ( log Kow = 0.53 ) (25 ℃, pH = 7)  **- Glycerine :** Low persistency (log Kow is less than 4 estimated.) ( log Kow = -1.75 ) (25 ℃, pH = 7.4)  **- Eucalyptus Oil :** Low persistency (log Kow is less than 4 estimated.) ( log Kow = 3.13 ) (estimated)  **- Vitamin C :** Low persistency (log Kow is less than 4 estimated.) ( log Kow = -2.0482 )  **- D-Sorbitol :** Low persistency (log Kow is less than 4 estimated.) ( log Kow = .20 )  **Degradability :** Not available |
| 12.3 Bioaccumulative potential | **Bioaccumulation :**  **- High-Purity Silica :** Bioaccumulation is expected to be low according to the BCF < 500 ( BCF = 3.162 )  **- Eucalyptus Oil :** Bioaccumulation is expected to be low according to the BCF < 500 ( BCF = 29.84 ) (estimated)  **- Vitamin C :** Bioaccumulation is expected to be low according to the BCF < 500 ( BCF = 3.162 ) (estimated)  **- D-Sorbitol :** Bioaccumulation is expected to be low according to the BCF < 500 ( BCF = 3 ) (SRC) (estimated)  **Biodegradation :**  **- Glycerine :** As well-biodegraded, it is expected to have low accumulation potential in living organisms(94 % biodegradation was observed after 24)  **- Eucalyptus Oil :** Does Not Biodegrade Fast (estimated)  **- Vitamin C :** As well-biodegraded, it is expected to have low accumulation potential in living organisms(97% biodegradation was observed after 5 days))  **- D-Sorbitol :** As well-biodegraded, it is expected to have low accumulation potential in living organisms(81 % biodegradation was observed after 2) |
| 12.4 Mobility in soil | **- High-Purity Silica :** No potency of mobility to soil. (Koc = 21.73)  **- Eucalyptus Oil :** No potency of mobility to soil. (Koc = 221.2) (estimated)  **- Vitamin C :** No potency of mobility to soil. (Koc = 10) (estimated)  **- D-Sorbitol :** No potency of mobility to soil. (Koc = 10) (SRC) (estimated) |
| 12.5 Results of PBT and vPvB assessment | Not available |
| 12.6 Other adverse effects | Not available |
| 12.7 Hazardous to the ozone layer | Not applicable |

**SECTION 13 : DISPOSAL CONSIDERATIONS**

#### 13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

- Waste and container must be disposed of in accordance with federal, state and local environmental control regulations.

Waste codes / waste designations according to LoW : Not available

13.1.2 Waste treatment-relevant information

- Consider the required attentions in accordance with waste treatment management regulation.

13.1.3 Sewage disposal-relevant information

- Not available

13.1.4 Other disposal recommendations:

- Not available

**SECTION 14 : TRANSPORT INFORMATION**

14.1 UN Number : Not applicable

14.2 UN Proper shipping name : Not applicable

14.3 Transport Hazard class : Not applicable

14.4 Packing group : Not applicable

14.5 Environmental hazards : Not applicable

14.6 Special precautions

in case of fire : Not applicable

in case of leakage : Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available

**SECTION 15 : REGULATORY INFORMATION**

#### 15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

#### EU Regulatory Information

#### EU Classification

Classification : Not regulated

Hazard statement codes : Not regulated

EU SVHC list : Not regulated

EU Authorisation List : Not regulated

EU Restriction List :

**- Wood Vinegar :** Regulated

#### Foreign Regulatory Information

External information :

Substance of Rotterdam Convention : Not regulated

Substance of Stockholm Convention : Not regulated

Substance of Montreal Protocol : Not regulated

15.2 Chemical safety assessment : In accordance with REACH Article 14, a Chemical Safety Assessment has been carried out for this substance.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**SECTION 16 : OTHER INFORMATION**

#### Product safety data sheet for prepared in accordance with Regulation (EU) 2015/830 (REACH), Annex II

#### 16.1 Indication of changes

#### Date Updated : 20 September 2019

#### Version : Rev. 00

#### 16.2 Abbreviations and acronyms

**ACGIH** = American Conference of Government Industrial Hygienists

**CLP** = Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008

**CAS No.** = Chemical Abstracts Service number

**EC Number** = EINECS and ELINCS Number (see also EINECS and ELINCS)

**EU** = European Union

**IARC** = International Agency for Research on Cancer

**NIOSH** = National Institute for Occupational Safety & Health

**NTP** = National Toxicology Program

**OSHA** = European Agency for Safety and Health at work

**PBT** = Persistent, Bioaccumulative and Toxic substance

**REACH** = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 453/2010

**SVHC** = Substances of Very High Concern

**vPvB** = Very Persistent and Very Bioaccumulative

**MARPOL** = International Convention for the Prevention of Pollution from Ships (IMO)

**IBC** = Intermediate Bulk Container

**EINECS** = European Inventory of Existing Commercial chemical Substances

**ELINCS** = European List of Notified Chemical Substances

#### 16.3 Key literature reference and sources for data :

EPISUITE v4.11; https://www.epa.gov/tsca-screening-tools/download-epi-suitetm-

estimation-program-interface-v411

OECD SIDS; http://webnet.oecd.org/hpv/ui/Search.aspx

REACH information on registered substances; https://echa.europa.eu/information-on-

chemicals/registered-substances

U.S. National library of Medicine(NLM) ChemIDplus;

https://chem.nlm.nih.gov/chemidplus/

U.S. National library of Medicine(NLM) Hazardous Substances Data Bank(HSDB);

http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB

TOMES-LOLI®; http://www.rightanswerknowledge.com/loginRA.asp

EU CLP; https://echa.europa.eu/information-on-chemicals/cl-inventory-database

American Conference of Governmental Industrial Hygienists TLVs and BEIs.

NIOSH Pocket Guide; http://www.cdc.gov/niosh/npg/npgdcas.html

National Toxicology Program; http://ntp.niehs.nih.gov/results/dbsearch/

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans;

#### Waste Control Act enforcement regulation attached [1]

#### 16.4 Classification and procedure used to derive the classification for mixtures according to Regulation(EC) 1272/2008(CLP):

|  |  |
| --- | --- |
| **Classification according to Regulation (EC) 1272/2008** | **Classification procedure** |
| Not classifed | Not available |

#### 16.5 Training advice :

- Do not handle until all safety precautions have been read and understood.

#### 16.6 Further information :

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation, as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.