Safety Data Sheet Divi's safety data sheet according to OSHA HCS



Revision date: 23.04.2020

Product Name: Vitamin D2 1 MIU/g Version: 000

| SECTION 1: | Identification. | | | | |
|------------|--|---|--|--|--|
| 1.1 | GHS Product identifier | | | | |
| | Product name : Vitamin D2 1 MIU/g | | | | |
| 1.2 | Recommended use of the chemical and restrictions on use | | | | |
| | Used as Nutrient in food and dietary supplement preparation | | | | |
| 1.3 | Supplier's details : D | ivi's Laboratories Limited, | | | |
| | 1 | -72/23(P)/Divis/303, | | | |
| | D | ivi towers, Cyber Hills, Gachibowli, | | | |
| | Н | yderabad – 500 032, Telangana | | | |
| | e-mail: <u>m</u> | nail@divislaboratories.com | | | |
| | Website: <u>w</u> | ww.divislabs.com | | | |
| 1.4 | Emergency phone number | +91-8922-248944 | | | |
| SECTION: 2 | Hazards Identification | | | | |
| 2.1 | Classification of the substance | Classification of the substance or mixture: | | | |
| | GHS Classification in accordance | ce with 29 CFR 1910 (OSHA HCS) | | | |
| | Acute toxicity, Oral Category 4 | | | | |
| | Acute toxicity, Inhalation Category | 4 | | | |
| | Skin sensitization Category 1B | | | | |
| | Specific Target Organ Toxicity Re | peated Exposure category 1 | | | |
| 2.2 | GHS label elements, including p | recautionary statements | | | |
| | Signal word(s) | | | | |
| | Danger | | | | |
| | Hazard statement(s) | | | | |
| | Harmful if swallowed | | | | |
| | Harmful if inhaled. | | | | |
| | May cause an allergic skin reaction | | | | |
| | Causes damage to organs through prolonged or repeated exposure | | | | |
| | Precautionary statement(s) | | | | |
| | Prevention: | | | | |
| | Avoid breathing mist/vapors. | | | | |
| | Wash hands thoroughly after handling. | | | | |
| | Do not eat, drink or smoke when using this product. | | | | |
| | Use only outdoors or in a well-ven | | | | |
| | - | d not be allowed out of the workplace | | | |
| | Wear protective gloves | | | | |
| | Response: | | | | |



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Rinse mouth.

IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

Call a POISON CENTER or doctor/physician if you feel unwell.

Get medical advice/attention if you feel unwell

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF ON SKIN: Wash with plenty of water

If skin irritation or rash occurs: Get medical advice/attention.

Specific treatment

Take off contaminated clothing and wash it before reuse.

Storage

No data available

Disposal:

Dispose according to international/local federal regulations

Hazard Pictograms:



2.3 Other hazards which do not result in classification

High risk of slipping due to leakage/spillage of product

SECTION 3. Composition/information on ingredients

- 3.1 **Substances** Material does not meet the criteria of a substance
- 3.2 Mixtures MCT oil (Caprylic capric triglyceride), DL-alpha-tocopherol, Vitamin D2

| Substance Name | CAS No | Ec No | Content ratio W/W % | Classification according Regulation with 29 CFR 1910 (OSHA HCS) | |
|---|--------------------------|-----------|------------------------|---|--|
| MCT Oil (Caprylic Capric triglyceride) | 65381-09-1 73398-61-5 | 265-724-3 | 90.0 - 97.0% | Not classified as hazardous substance | |
| DI-alpha Tocopherol | 10191-41-0 | 233-466-0 | ≤5.0% | Skin sensitization Category 1B | |
| Vitamin D2 (Ergocalciferol) | 50-14-6 | 200-014-9 | 2.5 – 3.0% | Acute Toxicity oral category: 2 Acute Toxicity Dermal category.3 Acute Toxicity inhalation category. 2 Single Target Organ Toxicity Repeated Exposure 1 | |



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SECTION 4: First aid measures

4.1 Description of necessary first-aid measures

4.1.1 General information:

Immediately remove contaminated clothing. If adverse health develops seek medical attention.

On inhalation:

Keep patient calm, remove to fresh air, Seek medical attention.

On skin contact:

Wash with soap and water for at least 15 minutes' while removing contaminated clothing and shoes. Get medical attention if irritation develops

On eye contact:

Check for and remove any contact lenses. In case of Contact, immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical attention if irritation occurs.

On ingestion:

DO NOT induce vomiting unless directed to do So by medical practitioner. Never give anything by mouth to an unconscious person. Get medical aid.

4.2 Most important symptoms/effects, acute and delayed

Symptoms/effects

Nausea, vomiting and diarrhoea, weight loss, irritability, weakness, fatigue, lassitude, and headache

4.3 Indication of immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

The treatment of hypervitaminosis D with hypercalcemia consists in immediate withdrawal of the vitamin, a low calcium diet, generous intake of fluids, along with symptomatic and supportive treatment. Hypercalcaemic crisis with dehydration, stupor, coma, and azotaemia requires more vigorous treatment. The first step should be hydration of the patient. Intravenous saline may quickly and significantly increase urinary calcium excretion. A loop diuretic (furosemide or ethacrynic acid) may be given with the saline infusion to further increase renal calcium excretion. Other reported therapeutic measures include dialysis or the administration of citrates, sulphates, phosphates, corticosteroids, EDTA (ethylenediaminetetraacetic acid), and mithramycin via appropriate regimens.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water spray, carbon dioxide, dry chemical powder or chemical foam. **Unsuitable extinguishing media**:

Water jet

5.2 Special hazards arising from the substance or mixture:

The substances/groups of substances mentioned can be released in case of fire. Evolution of fumes/ fog. Burning produces harmful and toxic fumes



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Hazardous combustion products: Carbon oxides.

5.3 Advice for fire-fighters:

Wear self-contained, breathing apparatus and protective Clothing to prevent contact with skin and eyes. Wear appropriate NIOSH/ MSHA approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

Fire-fighters should be equipped with self-contained breathing apparatus and turn-out gear

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Protective equipment:

Splash goggles, full suit, Shoes, gloves. A self-contained breathing apparatus should be used to avoid Inhalation of the product. Ensure adequate ventilation.

Emergency procedures:

As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150feet) in all directions. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area) Keep out of low areas. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

6.1.2 For emergency responders:

Avoid contact with the skin, eyes and clothing.

Use with local exhaust ventilation.

Wear self-contained, breathing apparatus and protective Clothing to prevent contact with skin and eyes.

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Wear safety glasses with side-shields.

Wear chemical resistant protective gloves.

Wear protective clothing.

Eye wash fountains and safety showers must be easily accessible.

6.2 Environmental precautions

Do not empty into drains. Do not discharge into drains/surface waters/ground water.

6.3 Methods and material for containment and cleaning up

6.3.1 for containment: For small amount: Rinse away with water.

For large amounts: Sweep/shovel up. Contain with liquid binding material and dispose of

For residues: Pick up with suitable appliance and dispose of.

Dispose of absorbed material in accordance with regulations

6.3.2 for cleaning up:

For small amounts: Sweep/shovel up.

For large amounts: Contain with liquid binding material and dispose of.

Pick up with suitable appliance and dispose of.



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Avoid raising dust. Dispose of absorbed material in accordance with regulations

6.3.3 Other information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 Protective measures

Advice on safe handling

Avoid breathing vapour, mist or gas. Avoid contact with skin and eyes

Take precautionary measures against electro-static charging. Local exhaust ventilation necessary. Provide suitable exhaust ventilation at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid contact with the skin, eyes and clothing

Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Prevent electrostatic charge – source of ignition should be kept well clear – fire extinguishers should be kept handy.

Avoid using tubes with push-in closures (when opened, the film of liquid trapped between tube and closure breaks and releases aerosols)

Use a vortex mixer instead of inverting tubes. Wait 30 seconds after shaking a tube before opening.

Use sealed safety cups and sealed rotors. Open cups inside a biosafety cabinet. Allow cups to sit prior to opening to allow aerosols to settle if no biosafety cabinet available

Do not empty into drains. Do not discharge into drains/surface waters/groundwater

7.1.2 Advice on general occupational hygiene

Wash thoroughly with soap and water thoroughly after handling.

Take off contaminated clothing and wash it before reuse.

Do not store in direct Sunlight, humidity, and especially to heat.

Do not breath dust. No eating, drinking, smoking or tobacco use at the place of work.

Hands and /or face should be washed before breaks and at the end of the shift.

Store work clothing separately.

Handle in accordance with good industrial hygiene and safety practice.

Keep away from food, drink and animal feeding stuffs.

Safety shower and eye wash should be available close to work area

7.2 Conditions for safe storage, including any incompatibilities

The product should be stored at room temperature & dry conditions in the unopened original packaging. Contents should be used immediately after opening. Protect contents from the effects of light, atmospheric oxygen, strong oxidizing agents, reducing agents, strong acids, strong bases.



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit(s)

| Substance name | CAS No | Occupational exposure Limits | |
|------------------------------|------------|--------------------------------|--|
| Caprylic Capric triglyceride | 65381-09-1 | | |
| (MCT OII) | 73398-61-5 | No data available | |
| | | OSHA- PEL:10 mg/m3(Total dust) | |
| DI-alpha-tocopherol | 10191-41-0 | TWA: 5 mg/m3(Respirable dust) | |
| Vitamin D2 (Ergocalciferol) | 50-14-6 | No data available | |

8.2 Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Airborne exposure should be controlled primarily by engineering controls such as general dilution ventilation, local exhaust ventilation, or process enclosure. Local exhaust ventilation is generally preferred to general exhaust because it can control the contaminant at its source, preventing dispersion into the work area. An industrial hygiene survey involving air monitoring may be used to determine the effectiveness of engineering controls. Effectiveness of engineering controls intended for use with highly potent materials should be assessed by use of nontoxic surrogate materials

8.3 Individual protection measures, such as Personal protective equipment (PPE)

Eye / Face protection:

Wear chemical safety goggles and/or a full-face shield. Maintain eye wash fountain in work area.

Skin protection:

Shoes, gloves, lab coat, apron or coveralls, as appropriate, to protect skin contact.

Hand protection: Wear chemical resistant protective gloves.

Body protection: Wear impervious protective clothing, including shoes, gloves, lab coat, apron or coveralls, as appropriate, to protect skin contact.

Respiratory protection: Breathing protection if breathable aerosols are formed. Wear a NIOSH-certified (or equivalent) Particulate.

Thermal hazards: No data available



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SECTION 9. Physical and chemical properties and safety characteristics

9.1 Basic physical and chemical properties

| Property | Remarks/Guidance | | |
|--|--|--|--|
| Appreance | Liquid | | |
| Physical state | | | |
| Colour | Yellow | | |
| Odour | None | | |
| Meltingpoint/freezingpoint | -10°C to -16°C (For melting) | | |
| Initial boiling point/boiling range | 269°C (For MCT Oil) | | |
| Flammability | No data available | | |
| Upper/lower flammability or explosive limits | No data available | | |
| Flash point | 250°C (For MCT Oil) | | |
| Auto-ignition temperature | No data available | | |
| Decomposition temperature | No data available | | |
| P ^H | No data available | | |
| Kinematic viscosity | No data available | | |
| Solubility(ies) | Not soluble in water | | |
| | Soluble in oils and fats | | |
| | Soluble in lipophilic solvents | | |
| Partition- coefficient: n-Octanol/water | No data available | | |
| Vapour pressure | No data available | | |
| Density and/or relative density | No data available | | |
| Relative Vapour density | 0.90-0.95 g/cm3 (25°C) | | |
| Particle Characteristics | No data available | | |
| Oxidising properties | Oxidizes in presence of oxygen when kept in open | | |
| | conditions | | |
| Viscosity Dynamic | ≤100 Cp at ambient temperature. | | |

9.2 Other information

No data available

SECTION 10: Stability and Reactivity

10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2 Chemical stability

No hazardous reactions when stored and handled according to instructions



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10.3 Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions

10.4 Conditions to avoid

Avoid all sources of ignition: heat, sparks, and open flame.

10.5 Incompatible materials

Atmospheric oxygen, Strong oxidizing agents, reducing agents, strong acids, strong bases

10.6 Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed /indicated.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity estimate:

LD₅₀ Value Oral : 333.33 mg/kg (Rat)

LD₅₀ Value Dermal : 2033.33 mg/kg (Rat)

LC50 value Inhalation : 1.66mg/l

Information on: Vitamin D2

Dermal LD50 Rat 61 mg/kg

Oral LD50 Rat 10 mg/kg.

Skin corrosion/ irritation

Classification not possible

Serious eye damage/irritation

Classification not possible

Respiratory or skin sensitisation

Mixture may cause sensitization to skin

Information on DL alpha tocopherol

Skin sensitisation potential of D, L-alpha-tocopherol was investigated in the Open Epicutaneous Test (OET), which was carried out in the albino Guinea pig (OECD guideline 406, non-GLP; Csato, 1997).

During the induction phase of sensitisation, the test article was applied epicutaneously onto the skin of the test animals 5 days a week for 4 consecutive weeks. The test article induced slight to strong irritant skin reactions in the experimental animals after repeated application during the induction treatment.

Considering the above experimental data, it can be concluded that topically applied D,L-alpha-tocopherol revealed a skin sensitizing potential at higher concentrations (> 3%) in Guinea pigs and in the mouse LLNA. However, cutaneous exposure to D, L-alpha-tocopherol at lower (non-irritating) concentrations (< = 1 % in Guines pigs and < = 3% in mice) did not result in sensitisation responses, and accordingly, is unlikely to give rise to skin sensitisation in man

Germ cell mutagenicity

Mixture is not a mutagen



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Carcinogenicity

Mixture is not carcinogenic

Reproductive Toxicity

Mixture is not a reproductive effector

STOT-Single Exposure : No data available

Information on: Vitamin D2

STOT-repeated Exposure:

Causes damage to organs (kidney, bone) through prolonged or repeated exposure.

Aspiration Hazard

No data available

11.2 Information on the likely routes of exposure

Inhalation:

Inhalation of mist may cause respiratory irritation .Prolonged inhalation may be harmful.

Skin contact:

No adverse effects due to skin contact are expected.

Eye contact:

Mist spill in the eyes will cause irritation.

Ingestion

Expected to be a low ingestion hazard.

11.3 Symptoms related to the physical, chemical and toxicological characteristics

Vitamin D analogs: Hypercalcemia. Gastrointestinal disturbances. Dry mouth. Metallic taste. Bone or muscle pain. Tiredness. Weakness. Headache. Confusion. Irregular heartbeat.

11.4 Delayed and immediate effects and also chronic effects from short term and long-term exposure. No data available

SECTION 12: Ecological information

12.1 Toxicity:

No Eco toxicity data noted for the ingredient(s).

- 12.2 Persistence and degradability: No data available
- 12.3 Bio accumulative potential: No data available
- 12.4 Mobility in soil: No data available
- 12.5 Other adverse effects:

No data available



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SECTION 13: Disposal considerations

13.1 Waste treatment methods.

Contact a licensed professional waste disposal service to Dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner and scrubber. Observe all federal, state, and local environmental regulations

SECTION 14: Transport information

| Regulation | | Land transport (DOT) | Sea transport (IMDG) | Air transport (ICAO/IATA) |
|------------|---------------------------|-------------------------------------|----------------------------------|----------------------------------|
| 14.1 | UN No. | | | |
| 14.2 | UN Proper shipping name | | | |
| 14.3 | Transport hazardclass(es) | Not regulated as dangerous goods | Not regulated as dangerous goods | Not regulated as dangerous goods |
| | Hazard label(s) | | | |
| 14.4 | Packing group | | | |
| 14.5 | Envirommental hazards | | | |

14.6 Special precautions for user

None

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

SECTION 15: Regulatory information

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

US regulations

TSCA section 12(b) Export notification (40 CFR 707, subpt. D): Not Regulated

CERCLA Hazardous substances list (40 CFR 302.4): Not listed

SARA 304 Emergency release notification .: Not Regulated

SECTION 16: Other information

16.1 Preparation information

Product code : II/ Vitamin D21MIU/g /02

Version : 000

Effective Date : 23.04.2020

Date of previous issue : -----

Prepared by : Divi's Laboratories Limited

16.2 Abbreviations and acronyms:

DOT: Department of Transportation

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association



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GHS: Globally Harmonized System
EC No: European Community No.
ACGIH: American conference of governmental industrial hygienist
OSHA: Occupational safety & health administration
TLV: Threshold limit value
TWA: Time weighted average
PEL: Permissible exposure limit
UN: United nation
STOT: Specific target organ toxicity
CAS: Chemical Abstracts Service (division of the American Chemical Society)
TSCA: Toxic Substance control act
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/36576 https://static.usp.org/pdf/EN/referenceStandards/msds/1239005.pdf https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/132309

16.4 Further information:

16.3

Training advice: Consult your supervisor or local safety & health Professional for required training appropriate for the safe handling, use of protective equipment, and Emergency response for this material.

Notice to Reader

NOTICE: This Safety Data Sheet is based upon data considered to be accurate at the time of preparation. Despite our efforts, it may not be up to date or applicable to the circumstances of any particular case. We are not responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the product

End of the safety data sheet