

Saudi Delta Company for Chemical Industries

Product Safety Data Sheet

1. Chemical product and company identification

1.1. **Prepared Date:** Jan. 15. 2024

1.2. **Product Information:**

Trade Name: Deltasad- 480 S.C (w/v).

1.3. **Information about manufacturer / supplier :**

Saudi Delta Company for Chemical Industries

Riadh – Saudi Arabia – 3rd Industrial City

Tel. 00966-11-2654533 Fax. 00966-11-2654532

P.O. Box 355809 Riyadh 11383 Saudi Arabia

2. Information on ingredients

2.1. **Chemical properties** (Component Substances).

The product is a mixture of one active ingredient, Emulsifiers ,antifreezing agent, and solvent.

- Spinosad: 48% w/v (insecticide)
- Monoethylene glycol: 1% w/v (Antifreezing Agent)
- Thicking Agent: 2 %
- Antifoaming Agent : 0.2 %
- Water

2.1.1. **Spinosad :**

IUPAC name : A mixture of (2R,3aR,5aR,5bS,9S,13S,14R,16aS,16bR)-2-(6-deoxy-2,3,4-tri-O-methyl-a-L-mannopyranosyloxy)-13-(4-dimethylamino-2,3,4,6-tetra-deoxy-b-D-erythropyranosyloxy)-9-ethyl-2,3,3a,5a,5b,6,7,9,10,11,12,13,14,15,16a,16b-hexadecahydro-14-methyl-1H-8-oxacyclododeca[b]as-indacene-7,15-dione and (2S,3aR,5aS,5bS,9S,13S,14R,16aS,16bS)-2-(6-deoxy-2,3,4-tri-O-methyl-a-L-mannopyranosyloxy)-13-(4-dimethylamino-2,3,4,6-tetra-deoxy-b-D-erythropyranosyloxy)-9-ethyl-2,3,3a,5a,5b,6,7,9,10,11,12,13,14,15,16a,16b-hexadecahydro-4,14-dimethyl-1H-8-oxacyclododeca[b]as-indacene-7,15-dione in the proportion 50-95% to 50-5%

CAS No.: [168316-95-8];[131929-60-7]spinosyn A;[131929-63-0]spinosyn D

Mol. wt.: 732.0 (spinosyn A); 746.0 (spinosyn D)

M.f. : C₄₁H₆₅NO₁₀ (spinosyn A); C₄₂H₆₇NO₁₀ (spinosyn D)

Form: Light grey to white crystals (tech.).

M.p. : 84-99.5 °C (spinosyn A); 161.5-170 °C (spinosyn D)

V.p. 3.0×10^{-5} mPa (25 °C) (spinosyn A); 2.0×10^{-5} mPa (25 °C) (spinosyn D)

KOW logP = 2.8 (pH 5), 4.0 (pH 7), 5.2 (pH 9) (spinosyn A); logP = 3.2 (pH 5), 4.5 (pH 7), 5.2 (pH 9) (spinosyn D)

S.g./density: 0.512 (bulk, 20 °C)

Solubility Spinosyn A : In water 89 ppm (distilled water), 235 ppm (pH 7) (both 20 °C). In acetone 16.8, acetonitrile 13.4, dichloromethane 52.5, hexane 0.448, methanol 19.0, n-octanol 0.926, toluene 45.7 (all in g/l, 20 °C).

Spinosyn D: In water 0.5 ppm (distilled water), 0.33 ppm (pH 7) (both 20 °C). In acetone 1.01, acetonitrile 0.255, dichloromethane 44.8, hexane 0.743, methanol 0.252, n-octanol 0.127, toluene 15.2 (all in g/l, 20 °C).

Spinosyn: In acetonitrile 9.9%, methanol 4.3%, dichloromethane 52%.

Stability : Stable to hydrolysis at pH 5 and 7; DT50 (pH 9) 200 d (spinosyn A), 259 d (spinosyn D). Aquatic photodegradation DT50 (pH 7) 0.93 d (spinosyn A), 0.82 d (spinosyn D).

3. Hazard Identification

3.1. H-Statements

H302 : Harmful if swallowed

H332 : Harmful if inhaled

H411 : Toxic to aquatic life with long-lasting effects

3.2. Precautionary Statements

P102 : Keep out of reach of children.

P264 : Wash hands thoroughly after handling

P270 : Do not eat, drink or smoke when using this product.

P273 : Avoid release to the environment

P280 : Wear protective gloves, protective clothing and eye and/or face

4. First aid Measures

4.1. General Advice : In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.2. First aider: Pay attention to self-protection!.

4.3. If ingestion : Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

4.4. If inhaled : If product is inhaled, remove person to fresh air.

If not breathing, give artificial respiration. Seek medical attention if breathing problems develop.

4.5. If on skin : Remove contaminated clothing. Wash skin and hair thoroughly; do two soap and water washings.

4.6. If in eyes : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

4.7. Note to physicians : Treat symptomatically

5. Fire Fighting Measures

5.1. Suitable extinguishing media :

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

5.2. Specific hazards arising : No specific hazard known.

5.3. Firefighting Instructions : Fire fighters should wear full protective gear, including self-contained breathing apparatus. Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

6.1. Personal precautions, : In case of spillage it is important to take all steps necessary to: Avoid protective equipment contact with the spilled material or contaminated surfaces. and emergency Extinguish or remove any sources of ignition. When dealing with procedures spills do not eat, drink or smoke and wear protective clothing and equipment. Keep people and animals away. Prevent spilled material from entering drains or watercourses.

6.2. Environmental precautions : Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities. Reposition any leaking containers so as to minimize leakage. Dam and absorb spill with an absorbent material (eg. sand or soil). Shovel the absorbed spill into drums

6.3. Methods and materials for containment and cleaning up : Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately). Take up mechanically, placing in appropriate containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

7. Handling and Storage

7.1. Precautions for safe handling : Safe work practices are recommended. Avoid contact with eyes and skin. When opening the container and preparing spray wear appropriate PPE. Do not spray under high wind conditions.

7.2. Conditions for safe storage : Keep out of reach of children, unauthorized persons and animals. Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food.

7.3. Incompatibilities : Store out of direct sunlight and extreme temperature.

8. Exposure controls , Personal Protections .

8.1. Engineering controls : Use only with adequate ventilation. Keep container tightly closed. Do not generate dust. Personal protective equipment (PPE)

8.2. Respiratory protection : Use NIOSH/MSHA approved respirator appropriate for exposure of concern.

8.3. Hand protection : Protective gloves

8.4. Eye protection : Wear safety glasses with side shields. Additionally, wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.

8.5. Skin and body protection : Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

9. Physical and chemical properties

9.1. **Shape:** Liquid.

9.2. **Colour:** White .

9.3. **Odour:** Odorless.

9.4. **Product use:** Insecticide

9.5. **Melting point:** Not applicable.

9.7. **Specific gravity (25°C):** 1.02

9.8. **Vapour Pressure:** Not available.

9.9. **Viscosity (CPS):** 250 (25°C)

9.10. **Solubility in water:** Forms a white emulsion.

9.11. **Flammable Limits:** N/A

9.12. **pH of 1% (aq. sol.) :** 6 ~ 9

10. Stability and Reactivity

10.1. Possibility of Hazardous Reactions : No dangerous reaction known under conditions of normal use and storage conditions.

10.2. Chemical Stability : This product is chemically stable under recommended conditions of storage, use and temperature. Conditions to Avoid : Protect this product from light. Store in the closed original container in a dry, cool, well ventilated area out of direct sunlight.

10.3. Incompatible materials : Strong acids, strong bases, strong oxidizing agents. Polymerization : This product will not undergo polymerization reactions.

11. Toxicological Information

11.1. Acute oral LD50, rats : >5000 mg/kg Acute

11.2. dermal LD50, rabbits : >5000 mg/kg

11.3. Acute Inhalation LD50, rats : >6.18 g/L

11.4. Skin Irritation (rabbits) : Not an irritant

11.5. Eye Irritation (rabbits) : Not an irritant

11.6. Skin Sensitization (guinea pigs) : Not a sensitizer

12. Ecological Data

Toxic to aquatic organisms on an acute basis.

12.1. Carp LC50, (96h) : >100 mg/L

12.2. Daphnia LC50 (48h) : >16.9 mg/L

12.3. Bees (LD50, µg/bee) : > 0.12 (contact); 0.11 (oral)

12.4. Worms (LC50, for earthworm) : >2000mg/Kg soil

13. Disposal Considerations

13.1. Pesticides Disposal

Pesticide wastes are toxic . Improper disposal of excess pesticide , spray mixture , or rinsate is a violation of Federal law . If these wastes cannot be disposed of use according to label instructions contact .

Environmental Control Agency , or the Hazardous Waste representative at the nearest EPA Regional Office for guidance .

13.2. Container disposal

13.2.1. Metal containers : Triple rinse (or equivalent) . Then offer for recycling or reconditioning , or puncture and dispose of in a sanitary landfill , or by other procedures approved by local authorities. Do not cut or weld metal containers .

- 13.2.2. *Plastic containers* : Triple rinse (or equivalent) . Then offer for recycling or reconditioning , or puncture and dispose of in a sanitary landfill , or incineration , or , if allowed by authorities , by burning . If burned, stay out of smoke .
- 13.2.3. *Returnable / Refillable Sealed Containers* : Don't rins container. Do not empty remaining formulated product . Do not break seals . Return intact to point of purchase .

14. Transport Information

UN No. : 3082

IMO CLASS: 9

UN PROPER SHIPPING NAME: ENVIRONMENTAL HAZARDOUS
SUBSTANCE , LIQUID,N.O.S

PACKING GROUP : III

SUSIDIARY RISK : -

GGVE/GGVS : 9

IATA/ICAO : 9

RID/ADR : 9

IMDG-Code :9

15. Regulatory Information

15.1. Toxicity Classifications : Moderately Hazardous

15.2. Warning Symbol : ☒

15.3. R-Phrase

R36/38 : Irritating to eyes and skin .

R22 : Harmful if swallowed

15.4 S-Phrase

S41 : In case of fire and /or explosion don't breath fumes .

S22 : Don't breath dust .

S24/25 : Avoide contact with skin and eyes.

S46 : If swallowed, seek medical advice immediately and show this container or labe .

16. Other Information

The producer warrantees the quality of this product in the original closed packagin, and of its conformity with authority agreement during 2 years .