


| | | |
|---|--|---------------------------|
|  | | Page: 1 |
| SAFETY DATA SHEET | | Revision Date: 09/18/2019 |
| | | Print Date: 19.05.2021 |
| | | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | | Version: 1.6 |

SECTION 1. IDENTIFICATION

Product identifier

Trade name : Zenix™ DZ4393
Contaminant Control Agent
™ Trademark, Solenis or its subsidiaries or affiliates,
registered in various countries

Recommended use of the chemical and restrictions on use

Use of the Substance/Mixture : Industrial chemical

| | |
|---|--|
| Details of the supplier of the safety data sheet Solenis LLC 500 Hercules Road Wilmington, Delaware 19808 United States of America (USA) RegulatoryRequestsNA@solenis.com | Emergency telephone number 1-844-SOLENIS (844-765-3647) Product Information Contact your local Solenis representative |
|---|--|

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.
If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical

| | |
|---|---------------------------|
| SAFETY DATA SHEET | Revision Date: 09/18/2019 |
| | Print Date: 19.05.2021 |
| | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | Version: 1.6 |

- advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : No symptoms known or expected.
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES


- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO2)
Dry chemical
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Specific extinguishing methods : Product is compatible with standard fire-fighting agents.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Comply with all applicable federal, state, and local regulations.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.

| | | |
|---|--|---------------------------|
|  | | Page: 3 |
| SAFETY DATA SHEET | | Revision Date: 09/18/2019 |
| | | Print Date: 19.05.2021 |
| | | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | | Version: 1.6 |

- Conditions for safe storage : For personal protection see section 8.
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures** : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.
- Skin and body protection : Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).
- Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : clear, light yellow
- Odour : No data available
- Odour Threshold : No data available
- pH : 4 - 4.5
- Melting point/freezing point : No data available
- Boiling point/boiling range : > 100 °C
- Flash point : does not flash
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Self-ignition : No data available
- Upper explosion limit : No data available

| | |
|---|---------------------------|
| SAFETY DATA SHEET | Revision Date: 09/18/2019 |
| | Print Date: 19.05.2021 |
| | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | Version: 1.6 |

| | | |
|--|---|--|
| Lower explosion limit | : | No data available |
| Vapour pressure | : | No data available |
| Relative vapour density | : | No data available |
| Relative density | : | 1.18 (25 °C) |
| Density | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | No data available |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n- octanol/water | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, dynamic | : | <= 1,500 cps (25 °C) Method: Brookfield |
| Viscosity, kinematic | : | No data available |
| Oxidizing properties | : | No data available |

SECTION 10. STABILITY AND REACTIVITY

| | | |
|---------------------------------------|---|---|
| Reactivity | : | No decomposition if stored and applied as directed. |
| Chemical stability | : | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | : | Product will not undergo hazardous polymerization. |
| Conditions to avoid | : | No data available |
| Incompatible materials | : | No data available |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Skin corrosion/irritation


Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

| | |
|---|---------------------------|
|  | Page: 5 |
| SAFETY DATA SHEET | Revision Date: 09/18/2019 |
| | Print Date: 19.05.2021 |
| | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | Version: 1.6 |

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC 50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
Remarks: see user defined free text

| | |
|---|---------------------------|
| SAFETY DATA SHEET | Revision Date: 09/18/2019 |
| | Print Date: 19.05.2021 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | SDS Number: 000000137167 |
| | Version: 1.6 |

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Daphnia magna (Water flea)): > 1,000 mg/l
 Exposure time: 48 h
 Remarks: see user defined free text

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.
 Chronic aquatic toxicity : Not classified based on available information.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
 Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

| ID NUMBER | PROPER SHIPPING NAME | *HAZARD CLASS | SUBSIDIARY HAZARDS | PACKING GROUP | MARINE POLLUTANT / LTD. QTY. |
|-----------|----------------------|---------------|--------------------|---------------|------------------------------|
| | | | | | |

IATA-DGR

| |
|---------------------|
| Not dangerous goods |
|---------------------|


IMDG-Code

| |
|---------------------|
| Not dangerous goods |
|---------------------|

CFR

| |
|---------------------|
| Not dangerous goods |
|---------------------|

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

| | | |
|---|--|---------------------------|
|  | | Page: 7 |
| SAFETY DATA SHEET | | Revision Date: 09/18/2019 |
| | | Print Date: 19.05.2021 |
| | | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | | Version: 1.6 |

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:


- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory
- ENCS : Not in compliance with the inventory
- KECI : Not in compliance with the inventory
- PICCS : Not in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TCSI : On the inventory, or in compliance with the inventory
- TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

| | | |
|---|--|---------------------------|
|  | | Page: 8 |
| SAFETY DATA SHEET | | Revision Date: 09/18/2019 |
| | | Print Date: 19.05.2021 |
| | | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | | Version: 1.6 |

Further information

Revision Date: 09/18/2019

Full text of other abbreviations

Further information

Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by the Solenis Environmental Health and Safety Department.

Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data


SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations

| | | |
|---|--|---------------------------|
|  | | Page: 9 |
| SAFETY DATA SHEET | | Revision Date: 09/18/2019 |
| | | Print Date: 19.05.2021 |
| | | SDS Number: 000000137167 |
| Zenix™ DZ4393 Contaminant Control Agent ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 875933 | | Version: 1.6 |

Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

US / EN