

Product:
SDS No.: Version 1.0

DURATAC

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Date 08.01.2024

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the product

Identification of the mixture: DuraTac

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

Use of the Substance/Mixture: Inorganic binder and surface modifier.

1.3. Details of the supplier of the safety data sheet

Supplier	Zydex Industries Private Limited 61, Gotri Sevasi Road, Gotri, Vadodara, Gujarat, India -390 021 Telephone: 91-265-3312000 www.zydexgroup.com
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E-mail address	info@zydexgroup.com
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1.4. Emergency telephone number Dr. Ajay Ranka (+91) 9825008145

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Product Classification (REGULATION (EC) No 1272/2008):

Not a hazardous substance according to Regulation (EC) 1272/2008 (CLP), its various amendments

2.2. Hazard Pictogram

None

Label Elements

Hazard statements: None

Precautionary statements: None

2.3. Other hazards

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance/Synonyms – Mixture

Chemical Name	Concentration[%]
Aqueous Dispersion of Silane Polymer	25 %
Water	75 %

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

General advice:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation:

If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.

Skin contact:

Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.

Ingestion:

Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. **Most important symptoms/effects, acute and delayed:** Dizziness, Drowsiness, headache, irritation, nausea, pre-existing sensitization, skin and/or respiratory disorders or diseases may be aggravated. Obtain emergency medical attention.

4.3. **Indication of immediate medical attention and special treatment needed, if necessary**
Treatment: Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use foam, carbon dioxide (CO ₂), dry chemical or water spray. A fog is recommended if water is used. |
| Unsuitable extinguishing media | : DO NOT USE high pressure media which could cause formation of a potentially explosible dust-air mixture. |

5.2. Special hazards arising from the substance or mixture:

None

Hazardous combustion products : Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

5.3. Advice for firefighters:

Firefighting procedures:

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from firefighting to enter drains or water courses.

Special protective actions for fire-fighters:

Wear suitable protective equipment. In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

General measures:

Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment. See also Section 8.

For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel. Stop leak without risks if possible. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapors.

For emergency responders:

Use personal protection recommended in Section 8.

For emergency procedures:

Ventilate area.

6.2. Environmental precautions:

Contain spilled product on land, if possible. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up:

If the spilled material contains dust or has the potential to create dust, use explosion-proof vacuums and/or cleaning systems suitable for combustible dusts. Use of a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Do not create a dust cloud by using a brush or compressed air. Dry sweeping is not recommended. See Section 13.

7. HANDLING AND STORAGE

7.1. Precaution for Safer handling:

- Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Dust may form explosive mixture in air.
- Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations. Fine dust is capable of penetrating electrical equipment and may cause electrical shorts.
- Hygiene measures- Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities:

- Technical measures- Ground/bond container and receiving equipment.
- Storage conditions- Keep containers tightly closed in a dry and well-ventilated place. Do not store together with volatile chemicals as they may be adsorbed onto product. Store at ambient conditions. Keep away from heat and sources of ignition. Keep in properly labeled containers. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released in the atmosphere in sufficient concentrations.
- Incompatible products- None known

Storage Stability: Keep away from moisture.

Shelf life: 48 months

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure guideline:

Dust, or Particulates Not Otherwise Specified:

Belgium	:	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ TWA, Respirable
China	:	8 mg/m ³ , TWA 10 mg/m ³ , STEL
France	:	10 mg/m ³ , TWA Inhalable dust 5 mg/m ³ , TWA Respirable dust
Italy	:	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ , TWA, Respirable

Malaysia	:	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ , TWA, Respirable
Spain	:	10 mg/m ³ , VLA, Inhalable 3 mg/m ³ , VLA, Respirable
US ACGIH - PNOS	:	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ , TWA, Respirable
US OSHA - PEL	:	15 mg/m ³ , TWA, Total dust 5 mg/m ³ , TWA, Respirable

Exposure controls:

Personal Protective equipment	:	Avoid all unnecessary exposure.
Hand Protection	:	Wear Protective gloves.
Eye Protection	:	Chemical goggles or safety glasses.
Skin and body protection	:	Wear appropriate protective clothing.
Respiratory protection	:	Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
Thermal Hazard Protection	:	Not required for normal conditions of use.
Environmental exposure controls	:	Avoid release to the environment.
Other Information	:	Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Colour	Clear to Cloudy
Odour	Odorless
Odour Threshold	No data available
pH	5 to 9
Melting point	0°C
Freezing point	Below -5°C
Boiling point	100°C
Flash point	Not applicable
Evaporation rate	No data available
Decomposition temperature	No data available
Viscosity	<10 cp
Viscosity, dynamic	< 10 mPa.s at 20 °C
Explosive properties	Not Explosive
Oxidizing properties	Not Oxidizing
Molecular weight	N/A
Flammability	Non Flammable
Density	1.20 - 1.35 g/ml
Relative vapor density	-
Water solubility	Dispersible
Lower explosion limit	Non explosive
Upper explosion limit	Non explosive

[Note: Physical data presented above are typical values and should not be construed as a specification]

10. STABILITY AND REACTIVITY

- 10.1. Reactivity:** Stable under normal conditions.
- 10.2. Chemical stability:** Stable under normal conditions.
- 10.3. Possibility of hazardous reactions:** Under fire conditions closed containers may rupture or explode. Can form explosive mixture with air.
- 10.4. Conditions to avoid:** Avoid drying out of the solution as this can lead to a build up of dust.
- 10.5. Incompatible materials to avoid:** Not Known
- 10.6. Hazardous decomposition products:** Carbon monoxide, Carbon dioxide.
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11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Inhalation: May cause respiratory tract irritation.

Skin: Causes mild skin irritation.

Eyes: May cause eye irritation.

Ingestion: May cause irritation of the mucous membranes.

Aggravated Medical Condition: None known.

Symptoms of Overexposure: No information available.

Toxicology Assessment

Further information: Information given is based on data on the components and the toxicology of similar products.

Test result

Acute oral toxicity: LD50: > 5,000 mg/kg

Species: Rat

The value is estimated from tests on similar products.

Sensitization: Result: Did not cause sensitization on laboratory animals.

Method: (Magnusson-Kligman):

The value is estimated from tests on similar products.

Germ cell mutagenicity

Genotoxicity in vitro: Ames test

Result: negative

Method: OECD Test Guideline 471

The value is estimated from tests on similar products.

Toxicology for other components:

Acute oral toxicity : LD50: 10,470 mg/kg
Species: Rat
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male): 116.9 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Information taken from reference works and the literature.

Skin Irritation:
Species: Rabbit
Result: No skin irritation
Method: OECD Test Guideline 404
Information taken from reference works and the literature.

Eye Irritation:
Species: Rabbit
Result: Irritating to eyes.
Method: OECD Test Guideline 405
Information taken from reference works and the literature.

Sensitization:
Species: Mouse
Result: Does not cause skin sensitization.
Method: OECD Test Guideline 429
Information taken from reference works and the literature.

Germ cell mutagenicity:
Ames test
Salmonella typhimurium
Result: negative
Method: OECD Test Guideline 471
Information taken from reference works and the literature.

12. ECOLOGICAL INFORMATION

Fish 96hr LC50	Species	Fish 96hr LC50	Species Fish	NOEC	Species
5000 mg/l	Danio rerio (Zebra fish)	>100 mg/l	Oryzias latipes (Medaka)	60 mg/l	Selenastrum capricornutum (green algae)

EC50 48 hr	Species	48 hr EC50	Species	EC10 (48 hr.)	Species
7,600 mg/l	Ceriodaphnia dubia (water flea)	120 mg/l	Selenastrum capricornutum (green algae)	140 mg/l	Selenastrum capricornutum (green algae)

12.1. Persistence and degradability : Not established

12.2. Bio accumulative potential: No bioaccumulation is expected.

12.3. Mobility in soil – Distribution among environmental compartments: Transport to air is not expected.

12.4. Other adverse effects: Avoid release to the environment

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

- **Waste disposal recommendations-** Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point.
- **Additional information-** Handle empty containers with care because residual vapours are flammable.
- **Ecology-waste materials-** Hazardous waste due to toxicity. Avoid release to the environment.

14. TRANSPORT INFORMATION

Regulation	14.1. UN number	14.2.UN proper shipping name	14.3.Clas s*	Label	14.4. PG*	14.5. Environmental hazards	14.6. Special precautions for user
ADR	Not Regulated	Not Applicable	NA	NA	NA	Not Classified	Ensure there is adequate ventilation
ADN	Not Regulated	Not Applicable	NA	NA	NA	Not Classified	
RID	Not Regulated	Not Applicable	NA	NA	NA	Not Classified	
IATA Cargo	Not Regulated	Not Applicable	NA	NA	NA	Not Classified	
IATA Passenger	Not Regulated	Not Applicable	NA	NA	NA	Not Classified	
IMDG	Not Regulated	Not Applicable	NA	NA	NA	Not Classified	

Description:

14.3. Transport hazard class (es)

14.4. Packing group

15. REGULATORY INFORMATION :

- **EU authorization and/or restrictions on use-** Not Applicable
Other EU Information – REACH Registration No. -
National Regulation: No additional information
- **INVENTORIES:**
 - EINECS : -
 - TSCA : Compliant
 - ELINCS : Compliant
 - DSL : Compliant
 - REACH EC 1907/2006 Registration : -

16. OTHER INFORMATION

Update:

Safety datasheet sections which have been updated:		Type
1		
2		
3		
4		
5		

Thesaurus:

vPvB : very Persistent and very Bio accumulative
PBT : Persistent, Bio accumulative and Toxic

Zydex Industries Private Limited urges each customer or recipient of this (M) SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However no warranty express or implied is given. Regulatory requirements are subject to change and may differ between various locations.

