

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

Product identifier: Tinopal DMA-X

Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses of the substance or mixture:

Industry sector: Detergents.

Type of use: Optical brighteners.

Company name: Nexchem Ltd
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Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification according CLP regulation (Regulation (EC) No. 1272/2008, as amended):

Not a hazardous substance or mixture.

Label elements:

Labelling according to CLP regulation (Regulation (EC) No. 1272/2008, as amended):

Not a hazardous substance or mixture.

Other hazards: Potential dust explosion hazard.

No additional hazards are known except those derived from the labelling.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

Chemical characterisation:

Blend based on: Stilbene disulfonic acid derivative, anionic.

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Hazardous ingredients:

Sodium Carbonate:

Concentration: >= 3 % - < 10 %
CAS Number: 497-19-8
EC-Number: 207-838-8
REACH registration number: 01- 2119485498-19-XXXX

GHS classification EC:

Eye irritation Category 2 H319

Formaldehyde, reaction products with sulfonated 1, 1'-oxybis [methylbenzene], sodium salts:

Content (W/W): >= 1 % - < 3 %
CAS Number: 90387-57-8
EC-Number: 291-331-1

GHS classification EC:

Chronic aquatic toxicity Category 3 H412

The text of the H-phrases is shown in section 16.

4. FIRST AID MEASURES

Description of first aid measures:

General information:

Remove contaminated clothing and shoes.

Ensure that the First Aid Personnel are aware of the product involved, and take precautions to protect themselves (e.g., wear personal protection equipment).

After inhalation:

If inhaled, remove to fresh air. Get medical advice/ attention.

After contact with skin:

In case of contact, immediately flush skin with plenty of water.

After contact with eyes:

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion:

If swallowed do not induce vomiting, seek medical advice and show safety datasheet or label.

Most important symptoms and effects, both acute and delayed:

Symptoms:

The possible symptoms known are those derived from the labelling (see section 2).

Hazards:

No additional hazards are known except those derived from the labelling.

Indication of any immediate medical attention and special treatment needed:

Treatment:

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media:

Dry powder.

Foam.

Extinguishing media that must not be used for safety reasons: Carbon dioxide (CO₂).

[cont...]

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Special hazards arising from the substance or mixture:

In case of fire hazardous decomposition products may be produced such as:

May release toxic, irritating and/or corrosive gases.
Harmful vapours.
Nitrogen oxides (NO_x).
Sulphur oxides.
Carbon oxides.

Advice for fire-fighters:

Special protective equipment: Self-contained breathing apparatus.
Full protective suit.

Further information:

Cool endangered containers with water spray jet.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Do not disperse powdered product in air.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.
Wear suitable protective equipment.
Keep away sources of ignition.

Environmental precautions:

Collect contaminated fire extinguishing water separately.
This must not be discharged into drains.
The product should not be allowed to enter drains, water courses or the soil.

Methods and material for containment and cleaning up:

Take up mechanically.
Avoid dust formation.
Take measures to prevent the build-up of electrostatic charge.
Risk of dust explosion.
Treat recovered material as described in the section "Disposal considerations".

Reference to other sections:

Additional information: Information regarding Safe handling, see chapter 7.
For Personal protection see section 8.
Information regarding Waste disposal, see chapter 13.

[cont...]

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7. HANDLING AND STORAGE

Precautions for safe handling:

Advice on safe handling:

Handle and open container with care.
Avoid dust formation.
Avoid dust accumulation in enclosed space.
Provide adequate ventilation.
Take measures to prevent the build-up of electrostatic charge.

Hygiene measures:

Wash hands before breaks and at the end of workday.
Use protective skin cream before handling the product.
Take off immediately all contaminated clothing and wash it before reuse.
Do not eat, drink or smoke when using this product.
Observe the usual precautions for handling chemicals.

Advice on protection against fire and explosion:

Dust can form an explosive mixture in air.
Keep away sources of ignition.
Take precautionary measures against build-up of electrostatic charges, e.g., earthing during loading and off-loading operations.
Observe the general rules of industrial fire protection.

Dust explosion class:

ST1- Capable of dust explosion.

Conditions for safe storage, including any incompatibilities:

Requirements for storage areas and containers:

Keep only in the original container.
Polyethylene containers.

Advice on storage compatibility:

Avoid storage near incompatible agents (see section 10).
Do not store or transport together with foodstuffs.

Further information on storage conditions:

Keep container tightly closed.
Keep away sources of ignition.

Specific end use(s):

No further recommendations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Exposure limit values:

Dust

Regulatory basis / Regulatory list

Revision

Type of value

Values

Remarks

UK. EH40 WEL - Workplace Exposure Limits

17/10/2007

WEL_TWA:

4 mg/m³

UK OEL - EH40 WELs

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DNEL/DMEL values: Sodium carbonate

EC number: 207-838-8

CAS number: 497-19-8

Route of exposure	Personnel	Exposure time/Effect	Value	Remarks
Inhalation	Workers	Long-term local effects	10 mg/m ³	
Inhalation	Consumers	Long-term local effects	10 mg/m ³	

PNEC values: Sodium carbonate

EC number: 207-838-8

CAS number: 497-19-8

Environmental compartment	Personnel/Exposure time/Effect	Value
Air	No exposure expected.	
Soil	No exposure expected.	
Secondary Poisoning	Does not bioaccumulate.	

Exposure controls:

Appropriate engineering controls:

Local ventilation recommended: Mechanical ventilation may be used.

General protective measures: Observe the usual precautions for handling chemicals.
Ensure that eyewash stations and safety showers are close to the workstation location.
Avoid contact with skin and eyes.
Do not breathe dust.

Respiratory protection: Local ventilation to keep levels below established threshold values is recommended.
In case of prolonged exposure to airborne dust concentrations, a suitable particle filter mask that complies with the requirements of national legislation is recommended, depending on the expected exposure levels.

Hand protection: Chemical resistant gloves.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection: Depending on the risk, wear sufficient eye protection (safety glasses with side protection or goggles, and if necessary, face shield.)

Body protection: Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Solid.

Form: Granules.

Particle size: Not available.

Colour: Yellow.

Odour: Characteristic.

Odour threshold: Not available.

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pH value: 8 - 10.5 (60°C, 5g/l)

Melting point: >200°C

Boiling point: Not available.

Flash point: Not applicable

Evaporation rate: Not applicable.

Flammability: Does not ignite.

Lower explosion limit: Not applicable.

Upper explosion limit: Not applicable.

Minimum ignition energy: Not available.

Vapour pressure: Not applicable.

Vapour density relative to air: Not applicable.

Relative density: Approx. 1.54 (22°C)

Solubility in water: > 5g/l (98°C)

1-2g/l (20°C)

Soluble.

Octanol/water partition coefficient (log Pow): This property is not applicable for mixture.

Ignition temperature: >500°C

Self-ignition temperature: Does not ignite.

Thermal decomposition: 280°C

Viscosity, dynamic: Not applicable

Viscosity, kinematic: Not applicable, the product is a solid

Explosion hazard: Explosive according transport regulation: Not explosive.

Method: Expert judgement.

Oxidizing properties: Type of oxidizing effect: The substance or mixture is not classified as oxidizing.

Method: Expert judgement

Other information:

Density: 1.54 g/cm³ (22°C). Information refers to the main component.

Bulk density: Not available.

Surface tension: Not applicable.

10. STABILITY AND REACTIVITY

Reactivity: See section 10.3 (Possibility of hazardous reactions).

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Potential dust explosion hazard.

Stable.

Conditions to avoid: Keep away from heat.

Keep away from open flames, hot surfaces and sources of ignition.

[cont...]

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Incompatible materials:

Substances to avoid: Strong oxidizing agent.
Strong bases.
Strong acids.

Hazardous decomposition products: Carbon monoxide and Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Information related to the product itself:

Acute oral toxicity: LD50 > 5,000 mg/kg (Rat)
Method: OECD Test Guideline 401

Acute dermal toxicity: Not available.

Acute inhalation toxicity: Not available.

Irritant effect on skin: No skin irritation.
Method: OECD Test Guideline 404

Irritant effect on eyes: Not available.

Sensitisation: Not available.

Repeated dose toxicity: Not available.

Genetic toxicity in vitro: Not available.

Carcinogenicity: Not available.

Developmental toxicity/teratogenicity: Not available.

Toxicity to reproduction/fertility: Not available.

Specific target organ toxicity (STOT) - single exposure: Not available.

Specific target organ toxicity (STOT) - repeated exposure: Not available.

Aspiration hazard: No data available.

Information related to the component: Sodium carbonate.

Acute oral toxicity: LD50 2,800 mg/kg (Rat).
Method: OECD Test Guideline 401.

Acute dermal toxicity: LD50 > 2,000 mg/kg (Rabbit).
Method: EPA

Acute inhalation toxicity: LC50 2,300 mg/l (2 h, Rat).
Method: OECD Test Guideline 403.
Information taken from reference works and the literature.

Irritant effect on skin: No skin irritation (Rabbit).
Method: OECD Test Guideline 404.

Irritant effect on eyes: Irritating (Rabbit).
Method: OECD Test Guideline 405.

[cont...]

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Repeated dose toxicity: Repeated dose toxicity.
Route of application: Inhalation.
LOAEL: > 0.01 mg/l (Humans).

Genetic toxicity in vitro: Test type: Ames test.
Metabolic activation: Metabolic activation.
Result: Negative.
Method: OECD Test Guideline 471
Read-across (Analogy).

Developmental toxicity/teratogenicity: Route of application: Oral.
NOAEL: \geq 245 mg/kg (Rat).
NOAEL (maternal): \geq 245 mg/kg (Rat).

12. ECOLOGICAL INFORMATION

Toxicity:

Information related to the product itself:

Fish toxicity: LC50 > 100 mg/l (96 h).
Method: OECD Test Guideline 203.

Daphnia toxicity: EC50 > 100 mg/l (Daphnia magna (Water flea)).
Method: OECD Test Guideline 202.

Algae toxicity: EC50 (Growth rate) > 100 mg/l (72 h, Desmodesmus subspicatus (green algae)).
Method: OECD Test Guideline 201.
The details of the toxic effect relate to the nominal concentration.

Bacteria toxicity: EC50 > 100 mg/l (Pseudomonas putida).
Method: OECD Test Guideline 209.

Toxicity to soil-dwelling organisms: LC50 > 5,000 mg/kg (14 d, Eisenia fetida (earthworms)).
Method: OECD Test Guideline 207.

Information related to the component: Sodium carbonate.

Fish toxicity: LC50 300 mg/l (96 h, Lepomis macrochirus (Bluegill sunfish)).
Information taken from reference works and the literature.

Daphnia toxicity: EC50 200 - 227 mg/l (48 h, Ceriodaphnia spec.)
Information taken from reference works and the literature.

Algae toxicity: EC50 10 - 100 mg/l (algae).

[cont...]

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Persistence and degradability:

Information related to the product itself:

Physico-chemical eliminability: Not available.

Biodegradability: > 90 % (DOC decrease)

Method: OECD Test Guideline 302B.

The product can be eliminated from water by abiotic processes, e.g., adsorption on activated sludge.

Chemical oxygen demand (COD): 890 mg/g

Biochemical oxygen demand (BOD5): 0 mg/g 5 d

Bioaccumulative potential:

Information related to the product itself:

Bioaccumulation: No information is available on the mixture "as is".

If relevant information is available on the substances listed in Chapter 3, it is reported here.

Information related to the component: Sodium carbonate.

Bioaccumulation: Does not bioaccumulate.

Mobility in soil:

Information related to the product itself:

Transport and distribution between environmental compartments: Volatility.

The substance does not evaporate into the atmosphere from the surface of water.

Adsorption/Soil.

After release, adsorbs onto soil.

Behaviour in environmental compartments: This material does neither contain nor was it manufactured using ozone-depleting chemicals.

Results of PBT and vPvB assessment:

Information related to the product itself: No information is available on the mixture "as is".

If relevant information is available on the substances listed in Chapter 3, it is reported here.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary, after consultation with the waste disposal operator and/or the competent Authorities.

Uncleaned packaging:

Packaging that cannot be cleaned should be disposed of as product waste.

[cont...]

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14. TRANSPORT INFORMATION

Section 14.1. to 14.5:

ADR:	Not restricted.
ADN:	Not restricted.
RID:	Not restricted.
IATA:	Not restricted.
IMDG:	Not restricted.

Special precautions for user: See sections 6 to 8 of this Safety Data Sheet.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code (International Bulk Chemicals Code):

No transport as bulk according to IBC - Code.

15. REGULATORY INFORMATION

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

Other regulations: Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

Chemical safety assessment: Chemical Safety Assessments (CSAs) are available for one or more of the component substances contained in this product.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Observe national and local legal requirements:

List of the text of the hazard statements mentioned section 3 (H-phrases):

- H319 Causes serious eye irritation.
- H412 Harmful to aquatic life with long lasting effects.

Legend:

- ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
- ADR European Agreement concerning the International Carriage of Dangerous Goods by Road.
- AOX Adsorbable organic bound halogens.
- CAS Chemical Abstracts Service.
- DMEL Derived Minimal Effect Level (genotoxic substances).
- DNEL Derived No Effect Level.
- EC50 Half maximal effective concentration.
- GHS Globally Harmonized System.

[cont...]

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IATA International Air Transport Association.
IMDG International Maritime Dangerous Goods.
LC50 Lethal Concentration 50%.
LD50 Lethal Dose 50%.
MARPOL International Convention for the Prevention of Pollution From Ships.
NOAEC No Observed Adverse Effect Concentration.
NOAEL No Observed Adverse Effect Level.
NOEC Non-Observed Effect Concentration.
OEL Occupational Exposure Limit.
PBT Persistent, Bioaccumulative, Toxic.
PEC Predicted Environmental Concentration.
PNEC Predicted No Effect Concentration.
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID International Rule for Transport of Dangerous Substances by Railway.
SVHC Substances of Very High Concern.
vPvB very Persistent and very Bioaccumulative.

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