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1. Identification

Product identifier used on the label

Tinopal® CBS-X

Recommended use of the chemical and restriction on use Recommended use*: Chemical Suitable for use in industrial sector: chemical industry

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

<u>Company:</u> BASF CORPORATION 100 Park Avenue Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family:	anionic	
Synonyms:	Derivative of a distyryl biphenyl compound.	Use: Raw material for
	the chemical-technical industry.	

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Label elements

Pictogram:

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Signal Word: Warning	
Hazard Statement: H319 H402	Causes serious eye irritation. Harmful to aquatic life.
Precautionary Stateme P280 P273 P264	ents (Prevention): Wear eye/face protection. Avoid release to the environment. Wash with plenty of water and soap thoroughly after handling.
Precautionary Stateme P305 + P351 + P338	Ints (Response): IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.
Precautionary Stateme P501	ents (Disposal): Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Weight %	Chemical name
68-12-2	0.1 - 0.2%	N,N-dimethylformamide
27344-41-8	75.0 - 100.0%	Benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1- ethenediyl)bis-, disodium salt

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

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

If on skin:

Wash thoroughly with soap and water.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

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If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: dry powder, foam

Unsuitable extinguishing media for safety reasons: carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting: harmful vapours, carbon oxides, sulfur oxides Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting: Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, section 8.

Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of. For large amounts: Contain with dust binding material and dispose of. Dispose of absorbed material in accordance with regulations.

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7. Handling and Storage

Precautions for safe handling

Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protection against fire and explosion: Avoid dust formation. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Advice on system design:

No applicable information available.

Personal protective equipment

Respiratory protection:

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

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Use appropriate chemically resistant gloves as determined by an evaluation of glove performance characteristics and the hazards and potential hazards identified, including but not limited to butyl, natural and synthetic rubber, nitrile, or neoprene.

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	granules
Odour:	characteristic
Odour threshold:	not applicable
Colour:	yellow-green
pH value:	7 - 8.5
	(1 g/l)

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Melting point:	> 300 °C	(OECD Guideline 102)
Boiling point: Sublimation point: Flash point: Flammability: Autoignition:	not applicable No applicable information available. not applicable not readily ignited 580 °C > 500 °C	(BAM) (VDI 2263, sheet 1, 2 6)
Vapour pressure: Density:	not applicable 1.49 g/cm3 (22 °C)	(Directive 92/69/EEC, A.3)
Bulk density: Partitioning coefficient n- octanol/water (log Pow): Self-ignition temperature:	550 - 670 g/l -2.32 (25 °C) not self-igniting	(OECD Guideline 107)
Thermal decomposition: Viscosity, dynamic: Viscosity, kinematic: Particle size: Solubility in water: Solubility (quantitative): Solubility (qualitative): Other Information:	 350 °C (dynamic (Lütolf oven)) not applicable No applicable information available. No data available. 25 g/l (30 °C) No applicable information available. No applicable information available. If necessary, information on other phy parameters is indicated in this section 	ysical and chemical

10. Stability and Reactivity

Reactivity

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

Oxidizing properties: not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product may contain explosive fine dust or such dust may be produced by abrasion during transport or product transfer.

Conditions to avoid

Avoid extreme temperatures. Avoid dust formation. Avoid deposition of dust.

Incompatible materials

strong oxidizing agents, strong bases, strong acids, reactive chemicals

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition: 350 °C (dynamic (Lütolf oven))

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11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

<u>Oral</u> Type of value: LD50 Species: rat Value: > 2,000 mg/kg (OECD Guideline 401)

Inhalation Type of value: LC50 Species: rat not determined

Dermal Type of value: LD50 Species: rat Value: > 2,000 mg/kg (OECD Guideline 402)

<u>Assessment other acute effects</u> Assessment of STOT single: Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion Assessment of irritating effects: Eye contact causes irritation. Not irritating to the skin.

<u>Skin</u> Species: rabbit Result: non-irritant Method: other

<u>Eye</u> Species: rabbit Result: Severely irritating. Method: OECD Guideline 405

<u>Sensitization</u> Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

<u>Aspiration Hazard</u> No aspiration hazard expected.

Chronic Toxicity/Effects

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Repeated dose toxicity

Information on: Benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, disodium salt

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Information on: N,N-dimethylformamide

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated inhalation. The substance may cause damage to the liver after repeated ingestion. May affect the liver as indicated in animal studies.

Genetic toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammals.

Carcinogenicity

Assessment of carcinogenicity: Based on available Data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity: Based on available Data, the classification criteria are not met.

Teratogenicity

Assessment of teratogenicity: Based on the ingredients, there is a suspicion of a teratogenic effect. Based on available Data, the classification criteria are not met.

Information on: Benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, disodium salt

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Information on: N,N-dimethylformamide

Assessment of teratogenicity: The substance caused malformations/developmental toxicity in laboratory animals. Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

Other Information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

12. Ecological Information

Toxicity

Aquatic toxicity Assessment of aquatic toxicity: Acutely harmful for aquatic organisms.

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<u>Toxicity to fish</u> LC50 (96 h) > 10 - < 100 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1)

<u>Aquatic invertebrates</u> EC50 (24 h) > 1,000 mg/l, Daphnia magna (OECD Guideline 202, part 1)

<u>Aquatic plants</u> EC50 (72 h) > 10 - < 100 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201) acute Effect

No observed effect concentration (72 h) > 1 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201) long-term effect

Chronic toxicity to fish No data available.

<u>Chronic toxicity to aquatic invertebrates</u> No observed effect concentration (21 d) > 1 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

Soil living organisms

Toxicity to soil dwelling organisms: LC50 (14 d) > 5,000 mg/kg, Eisenia foetida (OECD Guideline 207)

Microorganisms/Effect on activated sludge

Toxicity to microorganisms OECD Guideline 209 activated sludge/EC50 (3 h): > 100 mg/l

Persistence and degradability

Elimination information

> 70 % (28 d) (OECD Guideline 301 F) Readily biodegradable (according to OECD criteria).

Bioaccumulative potential

<u>Assessment bioaccumulation potential</u> Does not significantly accumulate in organisms.

Mobility in soil

<u>Assessment transport between environmental compartments</u> The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is expected.

Information on: Benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, disodium salt

The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is expected.

Additional information

Sum parameter

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Chemical oxygen demand (COD): 1,507 mg/g

Biochemical oxygen demand (BOD) Incubation period 5 d: 0 mg/g

Adsorbable organically-bound halogen (AOX): 0 %

Add. remarks environm. fate & pathway: Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:

The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:

Not a hazardous waste under RCRA (40 CFR 261).

14. Transport Information

Land transport USDOT

Not classified as a dangerous good under transport regulations

Sea transport IMDG

Not classified as a dangerous good under transport regulations

Air transport IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Acute;

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CERCLA RQ	CAS Number	Chemical name
100 LBS	68-12-2	N,N-dimethylformamide

CA Prop. 65:

There are no listed chemicals in this product.

Flammability: 1

NFPA Hazard codes:

Health : 2 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 2

Physical hazard:0

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2017/05/16

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