Safety Data Sheet

For INDIA, According to GHS (Rev. 8)

TINOPAL® CBS-X — FLUORESCENT WHITENING AGENT

Date of compilation: 05-08-2026 | Revised: 05-08-2026 | Version: 1

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

TINOPAL® CBS-X — FLUORESCENT WHITENING AGENT
Optical brightener; Distyryl biphenyl disulfonate derivative, disodium salt; FWA-351 type

CAS: 27344-41-8

Other means of identification:

Tinopal® is a registered trade name; product supplied by Suraj Chemicals as a trading intermediary. Not relevant beyond CAS/trade name given above.

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Optical brightener/fluorescent whitening agent for detergent powders and liquids, textile finishing (cotton, polyester-cotton blends), and paper brightening. For industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3. Not for use in food, drug or direct cosmetic applications.

1.3 Supplier's details:

SURAJ CHEMICALS
No 92, Govindappa Naicken Street, Shiva Complex, Chennai – 600001, Tamil Nadu, India
Tel: +91 - 7092722822, +91 - 9840284032 / +91 - 44 - 25393652, 42130281
Email: sales@surajchemicals.com | Website: www.surajchemicals.com
GST No: 33ACEPV8190L1ZZ

1.4 Emergency phone number:

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Eye Irrit. 2	Eye irritation, Category 2, H319
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic hazard, Category 3, H412

2.2 GHS label elements, including precautionary statements:

GHS: Warning

Hazard statements:

Eye Irrit. 2: H319 – Causes serious eye irritation.
Aquatic Chronic 3: H412 – Harmful to aquatic life with long lasting effects.

Precautionary statements:

P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/eye protection/dust mask.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists, get medical advice/attention.
P501: Dispose of contents/container in accordance with local/regional/national regulations.

2.3 Other hazards which do not result in classification:

Fine powder grades may present a nuisance-dust inhalation hazard during bulk handling.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical description: Distyryl biphenyl disulfonate derivative, disodium salt (stilbene-type fluorescent whitening agent)

In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 27344-41-8	Fluorescent Whitening Agent (Tinopal® CBS-X type) – Eye Irrit. 2: H319; Aquatic Chronic 3: H412 – Warning	Commercial grade: 90 – 100% active (powder), or diluted liquid/paste grade – exact assay Available on request per batch/grade

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

3.2 Mixtures:

Non-applicable (substance-based product; commercial liquid/paste grades are standardised dilutions of the same active with water and standard formulation aids)

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Request medical assistance if symptoms persist, showing the SDS of this product.

By inhalation:

If dust is inhaled, remove the person affected to fresh air. Seek medical attention if respiratory discomfort persists.

By skin contact:

Wash skin thoroughly with plenty of water and soap. Seek medical advice if irritation persists.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes, holding eyelids apart. Remove contact lenses if present and easy to do. Seek medical attention promptly.

By ingestion/aspiration:

Rinse mouth with water. Do not induce vomiting. Seek medical advice if large quantities are ingested or discomfort occurs.

4.2 Most important symptoms/effects, acute and delayed:

Causes serious eye irritation. No significant delayed effects expected under normal industrial handling.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Not relevant beyond standard first aid.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:

Suitable: Water spray/fog, carbon dioxide (CO^2), dry chemical powder, foam
Unsuitable: None known

5.2 Specific hazards arising from the chemical:

Combustible solid/powder; not readily ignitable under normal conditions. Fine dust dispersed in air may present a dust-explosion hazard near an ignition source. Combustion may produce oxides of carbon, nitrogen and sulphur.

5.3 Special protective actions for fire-fighters:

Wear self-contained breathing apparatus (SCBA) and full protective clothing in enclosed spaces. Cool fire-exposed containers with water spray.

Additional provisions:

Contain fire-fighting water to prevent environmental discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Avoid generating dust. Use personal protective equipment as per section 8. Ensure adequate ventilation.

For emergency responders:

Wear appropriate protective equipment including dust mask/respirator. Prevent access by unprotected persons.

6.2 Environmental precautions:

Prevent entry into drains, sewers and watercourses, as the product is harmful to aquatic life with long lasting effects.

6.3 Methods and materials for containment and cleaning up:

Sweep/vacuum up carefully (avoid raising dust) or absorb liquid grades with inert absorbent material, and place in suitable containers for reuse or disposal.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A. General precautions for safe use:

Avoid unnecessary contact and dust generation. Use local exhaust ventilation during weighing/bagging operations.

B. Technical recommendations for the prevention of fires and explosions:

Ground and bond equipment during transfer of powder grades to control static discharge. Control dust accumulation.

C. Technical recommendations on general occupational hygiene:

Wash hands after handling. Avoid eating, drinking or smoking while handling the product.

D. Technical recommendations to prevent environmental risks:

Prevent spillage from entering drains or watercourses.

7.2 Conditions for safe storage, including any incompatibilities:

A. Specific storage requirements:

Minimum Temp.	5°C
Maximum Temp.	30°C
Maximum time	24 Months (in sealed original containers, protected from light)

B. General conditions for storage:

Store in tightly closed containers in a cool, dry, well-ventilated place, protected from direct sunlight and strong oxidising agents. Optical brighteners can gradually lose fluorescent efficiency on prolonged exposure to light/heat.

7.3 Specific end use(s):

Except for the instructions already specified, it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

No specific occupational exposure limit has been established for this substance under the Factories Act, 1948. Treat dust from powder grades under a general nuisance/PNOC dust limit.

Identification	Occupational Exposure Limit Type	Value
Fluorescent Whitening Agent CAS: 27344-41-8	No established substance-specific OEL	Apply general PNOC dust limit (~10 mg/m³ total dust) for powder handling

8.2 Appropriate engineering controls:

Use local exhaust ventilation/dust extraction during bagging, weighing and bulk transfer operations.

B. Respiratory protection:

Dust mask (P1/P2) recommended when handling powder with inadequate ventilation.

C. Specific protection for the hands:

Protective gloves (nitrile) recommended for prolonged handling.

D. Eye and face protection:

Safety glasses or chemical splash goggles – important given the eye-irritation classification.

E. Bodily protection:

Normal industrial work clothing; coveralls recommended for dusty operations.

F. Additional emergency measures:

Eyewash station recommended in the work area.

Environmental exposure controls:

Avoid environmental spillage of both the product and its container. See subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	
Physical state at 20°C	Solid (powder/granules) or liquid (formulated dilution), grade dependent
Appearance	Fine powder or free-flowing granules

Color	Off-white to pale yellow
Odor	Odorless to faint characteristic odor
Odour threshold	Not relevant *
Volatility	
Boiling point at atmospheric pressure	Not relevant (decomposes before boiling; solid)
Vapour pressure at 20°C	Negligible
Evaporation rate at 20°C	Not relevant *
Product Description	
Density / Relative density at 20°C	~0.5 – 0.7 g/cm³ (bulk density, powder grade, typical)
Dynamic / Kinematic viscosity	Not relevant (solid)
Concentration	90 – 100% active (powder grade) – Available on request per batch
pH	7 – 9 (1% aqueous solution, typical)
Vapour density at 20°C	Not relevant *
Partition coefficient n-octanol/water 20°C	Log Pow < 0 (highly hydrophilic, sulfonated salt)
Solubility in water at 20°C	Readily soluble
Decomposition temperature	Not established (thermally stable up to processing temperatures)
Melting point/freezing point	Not established (decomposes rather than melting sharply)
Flammability	
Flash Point	Non-applicable (solid)
Flammability (solid, gas)	Not readily flammable
Autoignition temperature	Not established
Lower / Upper flammability limit	Not established
Particle Characteristics	
Median equivalent diameter	Powder grade – typically fine powder, Available on request

** Not relevant due to the nature of the product, not providing information on the properties of its hazards.*

9.2 Other information:

Explosive properties	Not explosive
Oxidising properties	Not oxidising
Corrosive to metals	Not corrosive
Heat of combustion	Not established
Surface tension at 20°C	Not established
Refraction index	Not relevant (solid)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactivity expected under normal conditions of use and storage.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use. Fluorescent efficiency may gradually diminish with prolonged exposure to UV light/heat.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Not applicable	Avoid prolonged exposure to heat	Protect from prolonged/direct UV exposure	Keep container closed to avoid moisture uptake

10.5 Incompatible materials:

Strong Oxidising Agents	Strong Acids/Bases
Avoid contact	Avoid contact – may affect stability/performance

10.6 Hazardous decomposition products:

Combustion or high-temperature decomposition may produce oxides of carbon, nitrogen and sulphur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Stilbene-type fluorescent whitening agents of this class have a well-documented low order of acute toxicity. In case of exposure that is repetitive, prolonged, or at concentrations higher than the recommended occupational exposure limits, adverse effects may result depending on the means of exposure:

A. Ingestion (acute effect):

Low acute oral toxicity; classification criteria are not met based on available data.

B. Inhalation (acute effect):

Dust may cause irritation of the upper respiratory tract.

C. Contact with skin and eyes (acute effect):

Causes serious eye irritation (H319). Not expected to be a significant skin irritant based on available data.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity):

Classification criteria for carcinogenicity, mutagenicity and reproductive toxicity are not met based on available data. IARC: Not listed.

E. Sensitizing effects:

Classification criteria for respiratory or skin sensitisation are not met based on available data.

F. Specific target organ toxicity (STOT) – single exposure:

Classification criteria are not met based on available data.

G. Specific target organ toxicity (STOT) – repeated exposure:

Classification criteria are not met based on available data.

H. Aspiration hazard:

Not relevant (solid powder).

Product-specific toxicological information:

Identification	Acute Toxicity	Genus
Fluorescent Whitening Agent CAS: 27344-41-8	LD50 oral: > 2,000 mg/kg (typical, literature range for this class)	Rat
	LD50 dermal: > 2,000 mg/kg	Rabbit

SECTION 12: ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

12.1 Toxicity:

Identification	Acute Toxicity	Species	Genus
Fluorescent Whitening Agent CAS: 27344-41-8	LC50: 10 – 100 mg/L (96h, typical literature range for this class)	Not specified	Fish
	EC50: 10 – 100 mg/L (48h)	Not specified	Crustacean (Daphnia)

12.2 Persistence and degradability:

Stilbene-type sulfonated fluorescent whitening agents generally show low to moderate biodegradability; not readily biodegradable per standard OECD-type test criteria.

12.3 Bioaccumulative potential:

Low potential for bioaccumulation expected based on Log Pow (highly hydrophilic sulfonated salt).

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
Low (highly water soluble)	Negligible	Expected to be mobile	Expected to be mobile

12.5 Results of PBT and vPvB assessment:

Not classified as PBT or vPvB based on available data.

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Do not discharge into drains or watercourses. Dispose of via a licensed waste contractor in accordance with local regulations. Empty containers may retain product residue; handle and dispose of/recycle accordingly.

Refer to national and local regulations on waste management.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023):

14.1 UN number	Not assigned
14.2 UN proper shipping name	Non-hazardous for transport
14.3 Transport hazard class(es)	Not classified
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22):

14.1 UN number	Not assigned
14.2 UN proper shipping name	Non-hazardous for transport
14.3 Transport hazard class(es)	Not classified
14.4 Packing group	N/A
14.5 Marine pollutant	No
14.6 Special precautions for user	Not applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by air (IATA/ICAO 2024):

14.1 UN number	Not assigned
14.2 UN proper shipping name	Non-hazardous for transport
14.3 Transport hazard class(es)	Not classified
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Not applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Tinopal® is noted here as a commonly used industry trade name for this CAS-identified active; Suraj Chemicals supplies this product as a trading intermediary, and exact batch-specific assay/dilution figures are available on request.

Texts of the legislative phrases mentioned in sections 2 and 3:

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

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Publicly available GHS classification references and standard industrial chemical data compilations for stilbene-type fluorescent whitening agents (CAS 27344-41-8).

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | Log-POW: Octanol-water partition coefficient | Koc: Partition coefficient of organic carbon | PNOC: Particulate Not Otherwise Classified | IARC: International Agency for Research on Cancer

---

END OF SAFETY DATA SHEET