

**Opti-Bright BA Powder**

(Product type: Fluorescent Whitener / Optical Brightener)

Version number GHS 1.0

Date of compilation 2021-02-11  
Date format: yyyy-mm-dd

**SECTION 1: Identification**

- 1.1 Product Identifier(s).**  
**Identification of the substance** **Fluorescent Brightener 28, sodium salt**  
**Trade name(s)** Opti-Bright BA Powder  
C.I. No. 40622  
**CAS number** 4193-55-9  
**Other means of identification**  
**Alternative name(s)** Disodium 4,4'-bis[6-anilino-[4-[bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonate  
C.I. No. 40622  
**Item code(s)** OB-BA-P
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
 Relevant identified uses Fluorescent Brightening Agent  
Optical brightener  
Marker, Tracer Colorant  
Industrial use  
Professional use  
 Uses advised against Do not use for products which come into contact with food-stuffs. Do not use for private purposes (household). Not for use with foodstuffs, pharmaceutical products or cosmetics. This product is for industrial and professional use only; it is not intended for household use.
- 1.3 Details of the supplier of the safety data sheet**  
 Robert Koch Industries, Inc.  
 4770 N. Harback Road  
 Bennett, CO 80102  
 United States  
 Telephone. +1 303.644.3763  
 Fax. +1 303.644.3045  
 Normal business hours: 0800 - 1700 MST/DST (UTC-7)  
 e-mail: sales@kochcolor.com.  
 Website: www.kochcolor.com.  
**e-mail (competent person)** sales@kochcolor.com  
(Mark Koch)
- 1.4 Emergency telephone number**  
**Emergency information service** 1.800.535.5053 Infotrac (24 hours) USA and Canada  
Outside of USA or Canada, call +1 352.323.3500

**SECTION 2: Hazard(s) identification**

- 2.1 Classification of the substance or mixture**  
**Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)**

Section	Hazard class	Category	Hazard class and category	Hazard statement
B.cD	Combustible dust.	Comb. Dust	CD	OSHA003
<b>Supplemental hazard information</b>				
Code	Supplemental hazard information			
HNOC002	May be harmful in contact with skin (GHS category 5: acutely toxic - dermal)			

For full text of abbreviations: see SECTION 16.

## 2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

**Signal word**                      **Warning**

**Pictograms**                      Not required

**Hazard statements**

**OSHA003**                      May form combustible dust concentrations in air.

## 2.3 Other hazards

Dust explosion hazards.

**Hazards not otherwise classified**

May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).

**Results of PBT and vPvB assessment**

According to the results of its assessment, this substance is not a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

**Name of substance**

Fluorescent Brightener 28, sodium salt

**IUPAC name**

Disodium 5-({4-[bis(2-hydroxyethyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino)-2-[2-[4-({4-[bis(2-hydroxyethyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino)-2-sulfonatophenyl]ethenyl}]benzene-1-sulfonate

**Identifiers**

**CAS No**

4193-55-9

**Molecular formula**

C40H42N12Na2O10S2

**Molar mass**

961 g/mol

## SECTION 4: First-aid measures

### 4.1 Description of first-aid measures

**General notes**

If irritation or symptoms occur from any route of exposure, remove the affected individual from the area. Remove contaminated clothing and laundry before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

**Following inhalation**

If inhalation causes irritation, remove to fresh air. If symptoms persist, get medical advice/attention.

**Following skin contact**

Brush off loose particles from skin.

**Following eye contact**

Flush eyes with clean water with eyelids open. Remove contact lenses if safe to do so. Continue rinsing for at least 15 minutes. Get medical advice/attention.

**Following ingestion**

Rinse mouth with water. Do NOT induce vomiting unless instructed to do so by medical personnel. Get medical advice/attention if symptoms occur or if the affected person does not feel well. Never give anything by mouth to an unconscious person.

### 4.3 Indication of any immediate medical attention and special treatment needed

None known. Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

In case of fire use water fog, foam, carbon dioxide (CO<sub>2</sub>), dry chemical.

**Unsuitable extinguishing media**

Avoid water jet, hose streams, or any method which will create dust clouds.

**5.2 Special hazards arising from the substance or mixture**

Danger of dust explosion. Deposited combustible dust has considerable explosion potential. As with all organic dusts, fine particles suspended in air in critical proportions and in the presence of an ignition source may ignite and/or explode. Concentrated dust/air combinations may produce explosive conditions under certain parameters. Dust may be sensitive to ignition by electrostatic discharge, electrical arcs, sparks, welding torches, cigarettes, open flame, or other significant heat sources. As a precaution, implement standard safety measures for handling finely divided organic powders. Refer to Section 7.1.

**Hazardous combustion products**

Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Sulfur oxides (SO<sub>x</sub>). Irritating or toxic substances may be emitted upon burning, combustion or decomposition.

**5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Remove persons to safety. Follow emergency procedures such as the need to evacuate the area, notify authorities or to consult an expert. Keep unnecessary personnel away. Wear personal protective equipment to prevent injury. See section 8 of this SDS. Ensure adequate ventilation.

**6.2 Environmental precautions**

Do not flush product down drains that discharge into public sewer systems. Do not pour onto the ground. Do not release into surface waters such as lakes, rivers and streams. Dispose of unusable product, wash water, and contaminated materials properly. See section 13 for disposal considerations.

**6.3 Methods and materials for containment and cleanup**

Take up mechanically.

Cover floor drains. Prevent spilled material from leaving the area if safe to do so. Use care to avoid dust generation. vacuum or carefully sweep into a closed container for reuse or disposal. Only use an approved industrial vacuum cleaner.

Suitable absorbent material(s) include:

Collect spilled material and place into suitable container(s) for reuse or disposal. Label containers appropriately.

**Other information relating to spills and releases**

Place in appropriate containers for disposal. Ventilate affected area.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Recommendations****Measures to prevent fire as well as aerosol and dust generation**

Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Only vacuum cleaners containing no ignition sources may be used for combustible dusts. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

**Specific notes/details**

There is a risk of a dust explosion if powdered combustible dust is present in high-enough concentrations. Dust deposits can accumulate on surfaces in working area. Dust deposits have the potential to form an explosive dust-air mixture if disturbed. Carefully remove accumulated dust from surface areas on a regular basis. Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

**Advice on general occupational hygiene**

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

**7.2 Conditions for safe storage, including any incompatibilities****Managing of associated risks****Explosive atmospheres**

Avoid generation of dust. Removal of dust deposits. Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

# SDS Opti-Bright BA Powder

Version number GHS 1.0

Date of compilation 2021-02-11

## Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

## 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Country	Name of agent	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	Notation	Source
US	Particulates not otherwise classified	REL			Appx-D	NIOSH REL
US	Particulates not otherwise classified (PNOC)	PEL	1,766	15	I, dust	29 CFR 1910.1000
US	Particulates not otherwise classified (PNOC)	PEL	529.5	5	Partml, r, dust	29 CFR 1910.1000
US	Particulates not otherwise regulated	PEL (CA)		10	Dust	Cal/OSHA PEL
US	Particulates not otherwise regulated	PEL (CA)		5	R	Cal/OSHA PEL

#### Notation

appx-D See Appendix D - Substances with No Established RELs.

dust As dust.

i Inhalable fraction.

partml Particles/ml.

r Respirable fraction.

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified).

### 8.2 Exposure controls

#### Appropriate engineering controls

General ventilation. The use of approved dust collection equipment is recommended in high dust environments.

#### Individual protection measures (personal protective equipment)

##### Eye/face protection

Wear eye/face protection.

##### Hand protection

Wear chemical resistant protective gloves.

##### Other protection measures

Wash thoroughly after handling. An eyewash station and/or safety shower is recommended in the work area.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. If inhalation of dust, mist, or vapor is possible, wear an approved respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

##### Environmental exposure controls

Protect against release into the environment using preventative containment measures. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

##### Physical state

Solid  
Powder

##### Color

Light yellow

##### Odor

Faintly perceptible

##### Other safety parameters

##### pH (value)

Not applicable

##### Melting point/freezing point

>300 °C at 1,013 hPa

## SDS Opti-Bright BA Powder

Version number GHS 1.0

Date of compilation 2021-02-11

<b>Initial boiling point and boiling range</b>	Not determined
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not determined
<b>Flammability (solid, gas)</b>	This material is combustible, but will not ignite readily
<b>Explosion limits of dust clouds</b>	not determined
<b>Vapor pressure</b>	0 Pa at 25 °C
<b>Density</b>	Not determined
<b>Vapor density</b>	This information is not available
<b>Bulk density</b>	0.3 – 0.45 g/cm <sup>3</sup>
<b>Relative density</b>	Information on this property is not available
<b>Solubility(ies)</b>	
<b>Water solubility</b>	2 g/l at 20 °C
<b>Partition coefficient - n-octanol/water (log KOW)</b>	-5.49 (pH value: 7, 25 °C)
<b>Soil organic carbon/water (log KOC)</b>	≥2.45 – ≤4
<b>Auto-ignition temperature</b>	303 °C
<b>Decomposition temperature</b>	300 °C at 1,013 hPa
<b>Viscosity</b>	Not relevant Solid matter
<b>Explosive properties</b>	Dust explosion hazards
<b>Oxidizing properties</b>	None
<b>9.2 Other information</b>	
<b>Solid content</b>	100 %

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

#### 10.2 Chemical stability

See below "Conditions to avoid".

#### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4 Conditions to avoid

Avoid conditions that create dust.

#### 10.5 Incompatible materials

Strong oxidizers.

#### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)**

##### Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4. May be harmful in contact with skin.

# SDS Opti-Bright BA Powder

Version number GHS 1.0

Date of compilation 2021-02-11

Acute toxicity				
Exposure route	Endpoint	Value	Species	Source
Oral	LD50	>14,530 mg/kg	Rat	MVC-Report. Vol. 2, Pg. 193, 1973.
Oral	LD50	>10,000 mg/kg	Mouse	Critical Reviews in Environmental Control. Vol. 7, Pg. 91, 1977.
Dermal	LD50	>2,000 mg/kg	Rat	European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>

**Skin corrosion/irritation**

Shall not be classified as corrosive/irritant to skin.

**Serious eye damage/eye irritation**

Shall not be classified as seriously damaging to the eye or eye irritant.

**Respiratory or skin sensitization**

Shall not be classified as a respiratory or skin sensitizer.

**Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

**Carcinogenicity**

Shall not be classified as carcinogenic.

**Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

**Specific target organ toxicity - single exposure**

Shall not be classified as a specific target organ toxicant (single exposure).

**Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

**Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

**12.2 Persistence and degradability**

Process of degradability		
Process	Degradation rate	Time
DOC removal	1.2 %	28 d

**12.3 Bioaccumulative potential**

Data are not available.

<b>n-octanol/water (log KOW)</b>	-5.49 (pH value: 7, 25 °C)
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**12.4 Mobility in soil**

<b>Henry's law constant</b>	0 Pa m <sup>3</sup> /mol at 25 °C
<b>The Organic Carbon normalised adsorption coefficient</b>	≥2.45 – ≤4

**12.5 Results of PBT and vPvB assessment**

Data are not available.

**12.6 Endocrine disrupting properties**

Not listed.

**12.7 Other adverse effects**

Data are not available.

**SECTION 13: Disposal considerations****13.1 Waste Treatment Methods / Disposal Instructions**

Avoid release to the environment. Do not contaminate ponds, waterways or ditches with product or container. Dispose of contents/container in accordance with applicable local, regional, national, and international regulations.

**Sewage disposal-relevant information**

Do not allow this material to enter floor drains, sewer drains or storm drains.

**Waste treatment of containers/packages**

Containers containing product or product residue should be disposed of in the same manner as the product. Completely emptied and thoroughly cleaned containers can be recycled.

**SECTION 14: Transport information****Information for each of the UN Model Regulations****14.8.3 Transport of dangerous goods by road or rail (49 CFR US DOT)**

Not subject to transport regulations.

**14.8.6 International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

**14.8.7 International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations specific for the product in question****National regulations (United States)****Toxic Substance Control Act (TSCA)**

Substance is listed

**Superfund Amendment and Reauthorization Act (SARA TITLE III )****The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)**

Not listed.

**Specific Toxic Chemical Listings (EPCRA Section 313)**

Not listed.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)****List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)**

Not listed.

**Clean Air Act**

Not listed.

**Cleaning Product Right to Know Act Substance List (CA-RTK)**

Not listed.

**Toxic or Hazardous Substance List (MA-TURA)**

Not listed.

**Hazardous Substances List (MN-ERTK)**

Not listed.

**Hazardous Substance List (NJ-RTK)**

Not listed.

**Hazardous Substance List (Chapter 323) (PA-RTK)**

Not listed.

**Hazardous Substance List (RI-RTK)**

Not listed.

**California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987**

Not listed.

## SDS Opti-Bright BA Powder

Version number GHS 1.0

Date of compilation 2021-02-11

### Drug precursorsChemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

Not listed.

### VOC content

Regulated Volatile Organic Compounds (VOC-EPA): 0 %.

Regulated Volatile Organic Compounds (VOC-Cal ARB): 0 %.

### Industry or sector specific available guidance(s)

#### NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	Material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	0	Material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material
Instability	0	Material that is normally stable, even under fire conditions
Special hazard		

### National inventories

Country	Inventory	Status
AU	AICS	Substance is listed
CA	DSL	Substance is listed
CN	IECSC	Substance is listed
EU	ECSI	Substance is listed
EU	REACH Reg.	Substance is listed
JP	CSCL-ENCS	Substance is listed
KR	KECI	Substance is listed
NZ	NZIoC	Substance is listed
PH	PICCS	Substance is listed
TR	CICR	Substance is listed
TW	TCSI	Substance is listed
US	TSCA	Substance is listed

#### Legend

AICS Australian Inventory of Chemical Substances.

CICR Chemical Inventory and Control Regulation.

CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS).

DSL Domestic Substances List (DSL).

ECSI EC Substance Inventory (EINECS, ELINCS, NLP).

IECSC Inventory of Existing Chemical Substances Produced or Imported in China.

KECI Korea Existing Chemicals Inventory.

NZIoC New Zealand Inventory of Chemicals.

PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS).

REACH Reg. REACH registered substances.

TCSI Taiwan Chemical Substance Inventory.

TSCA Toxic Substance Control Act.

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.



## SDS Opti-Bright BA Powder

Version number GHS 1.0

Date of compilation 2021-02-11

### SECTION 16: Other information, including date of preparation or last revision

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Cal ARB	California Air Resources Board
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
IUPAC	International Union of Pure and Applied Chemistry
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
Ppm	Parts per million
TWA	Time-weighted average
VOC	Volatile Organic Compounds
VPvB	Very Persistent and very Bioaccumulative

#### Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

#### List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
OSHA003	May form combustible dust concentrations in air.

## SDS Opti-Bright BA Powder

Version number GHS 1.0

Date of compilation 2021-02-11

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This Safety Data Sheet (SDS) cannot cover all possible situations which the user may experience during use of this product. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.