

# SAFETY DATA SHEET

Preparation Date: 4/16/2014

Revision Date: 7/14/2020

Revision Number: 4

## 1. IDENTIFICATION

### Product identifier

**Product code:** C3765  
**Product Name:** FDANDC BLUE NO. 1

### Other means of identification

#### **Synonyms:**

1206 Blue  
Acid Sky Blue A  
Acid Blue 9  
Aizen Food Blue No. 2  
Blue 1206  
Blue FCF  
Brilliant Blue FCD No. 1  
Brilliant Blue FCF  
Brilliant Blue FCF Supra  
C.I. Acid Blue 9, disodium salt  
C.I. Food Blue 2  
Canacert Brilliant Blue FCF  
Cosmetic Blue Lake  
D & C Blue No. 1  
Disodium erioglaucine  
Dolkwal Brilliant Blue  
Erioglaucine  
E 313 (dye)  
FD & C Blue No. 1  
FD and C Blue 1  
FD and C Blue No. 1  
FDC Blue No. 1  
Fenazo Blue XI  
Food Blue 1  
Food Blue 2  
Food Blue Dye No. 1  
Hexacol Brilliant Blue A  
Intracid Pure Blue L  
Japan Blue 1  
Japan Blue No. 1  
Merantine Blue EG  
Usacert Blue No. 1  
Usacert FD and C Blue No. 1  
Benzenemethanaminium,  
N-ethyl-N-[4-[[4-[ethyl[sulfophenyl)methyl]amino]phenyl](2-sulfophenyl)methylene]-  
2,5-cyclohexadien-1ylidene]-3-sulfo-, inner salt, sodium salt(1:2)  
Benzenemethanaminium,  
N-ethyl-N-[4-[[4-[ethyl[sulfophenyl)methyl]amino]phenyl](2-sulfophenyl)methylene]-  
2,5-cyclohexadien-1ylidene]-3-sulfo-, hydroxide, inner salt, disodium salt  
Benzenemethanaminium,  
N-ethyl-N-[4-[[4-[ethyl[sulfophenyl)methyl]amino]phenyl](2-sulfophenyl)methylene]-  
2,5-cyclohexadien-1ylidene]-3-sulfo-, inner salt, disodium salt

CAS #: 3844-45-9  
RTECS # BQ4725000  
CI#: 42090

**Recommended use of the chemical and restrictions on use**

**Recommended use:** Coloring agent. Biological stain. Textile dye. Wood stain. Indicator.  
**Uses advised against** No information available

**Supplier:** Lab Alley LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669  
512-668-9918

**Order Online At:** <https://www.laballey.com/products/fdandc-no1-dye-acid-blue-9>

## 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is not considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Label elements**

Not classified

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Not available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
FD&C Blue #1	3844-45-9	100

## 4. FIRST AID MEASURES

**First aid measures**

**General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.

**Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

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**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May cause eye/skin irritation

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media:** Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide. Nitrogen Oxides. Sulfur Oxides.

**Specific hazards:** May be combustible at high temperatures.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Remove all sources of ignition. Avoid contact with skin, eyes and clothing.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

## **Precautions for safe handling**

### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Protect from light. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

## **Conditions for safe storage, including any incompatibilities**

### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Sensitive to light. Store in light-resistant containers. Store at room temperature in the original container. Store away from incompatible materials.

### **Incompatible Materials:**

Oxidizing agents

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

#### **National occupational exposure limits**

##### **United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
FD&C Blue #1	3844-45-9	None	None	None	None

##### **Canada**

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
FD&C Blue #1	3844-45-9	None	None	None	None

##### **Australia and Mexico**

Components	CAS-No.	Australia	Mexico
FD&C Blue #1	3844-45-9	None	None

### **Appropriate engineering controls**

#### **Engineering measures to reduce exposure:**

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### **Individual protection measures, such as personal protective equipment**

#### **Personal Protective Equipment**

**Eye protection:** Safety glasses with side-shields

**Skin and body protection:** Long sleeved clothing  
Chemical resistant apron

Gloves

**Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Crystalline powder.	<b>Color:</b> Dark violet. Reddish-violet. Purple.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available.	<b>Formula:</b> C37-H34-N2-O9-S3-Na2
<b>Molecular/Formula weight:</b> 792.86	<b>Flammability:</b> No information available	<b>Flashpoint (°C/°F):</b> No information available.
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> No information available	<b>Decomposition temperature(°C/°F):</b> 283
<b>Boiling point/range(°C/°F):</b> No information available	<b>Bulk density:</b> No information available	<b>Density (g/cm3):</b> No information available
<b>Specific gravity:</b> No information available	<b>pH:</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> No information available	<b>Viscosity:</b> No information available
<b>Miscibility:</b> No information available	<b>Solubility:</b> Soluble in Water	

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with oxidizing agents

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Avoid dust formation. Exposure to light. Incompatible materials.

**Incompatible Materials:** Oxidizing agents

**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx). Sodium oxides. Sulfur oxides.

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**Other Information**

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Principal Routes of Exposure:**

Ingestion. Inhalation.

**Acute Toxicity****Component Information**

FD&C Blue #1	
CAS-No.	3844-45-9

**LD50/oral/rat** = > 2 g/kg Oral LD50 Rat  
**LD50/oral/mouse** = No information available  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = No information available  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

**Product Information**

**LD50/oral/rat** =  
**VALUE- Acute Tox Oral** = > 2000 mg/kg

**LD50/oral/mouse** =  
**Value - Acute Tox Oral** = No information available

**LD50/dermal/rabbit**  
**VALUE-Acute Tox Dermal** = No information available

**LD50/dermal/rat**  
**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**  
**VALUE-Vapor** = No information available  
**VALUE-Gas** = No information available  
**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**  
**VALUE-Vapor** = No information available  
**VALUE - Gas** = No information available  
**VALUE - Dust/Mist** = No information available

**Symptoms**

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause irritation of respiratory tract.

**Ingestion** May cause digestive (gastrointestinal) tract irritation.

**Aspiration hazard** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** No information available.

**Sensitization:** No information available.

**Mutagenic Effects:** May affect genetic material

**Carcinogenic effects:** Not classifiable as to its carcinogenicity to humans. May cause cancer based on animal test data. Equivocal tumorigenic agent by Registry of Toxic Effects of Chemical Substances (RTECS) criteria.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
FD&C Blue #1	3844-45-9	Group 3 - Not classifiable as to its carcinogenicity to humans - Supplement 7 [1987] Monograph 16 [1978]	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)  
Group 3 - Not classifiable as to its carcinogenicity to humans  
NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** No information available.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

*FD&C Blue #1 - 3844-45-9*

**Freshwater Fish Species Data:** LC50 - Oncorhynchus mykiss (rainbow trout) - 412/mg/l - 96 h  
**Water Flea Data:** EC50 - Daphnia magna (water flea) - >97 mg/l - 48 h

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
FD&C Blue #1	3844-45-9	None	None	None	None

### 14. TRANSPORT INFORMATION

#### DOT

**UN-No:** Not Regulated

**Proper Shipping Name:** No information available

**Hazard Class:** No information available

**Subsidiary Class:** No information available

**Packing group:** No information available

**Emergency Response Guide Number:** No information available

**Marine Pollutant:** No data available

**DOT RQ (lbs):** No information available

**Special Provisions:** No Information available

**Symbol(s):** No information available

**Description:** No information available

#### TDG (Canada)

**UN-No:** Not Regulated

**Proper Shipping Name:** No information available

**Hazard Class:** No information available

**Subsidiary Risk:** No information available

**Packing Group:** No information available

**Marine Pollutant:** No Information available

**Description:** No information available

#### ADR

**UN-No:** Not Regulated

**Proper Shipping Name:** No information available

**Hazard Class:** No information available

**Packing Group:** No information available

**Subsidiary Risk:** No information available

#### IMO / IMDG

**UN-No:** Not Regulated

**Proper Shipping Name:** No information available

**Hazard Class:** No information available

**Subsidiary Risk:** No information available

**Packing Group:** No information available



**Marine Pollutant** No information available

**RID**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

**ICAO**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

**IATA**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**ERG Code:** No information available  
**Special Provisions** No information available

**15. REGULATORY INFORMATION**

**International Inventories**

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
FD&C Blue #1	3844-45-9	PresentACTIVE	Present KE-13703	Present	Present (5)-1632	Present	Present	Present 223-339-8

**U.S. Regulations**

*FD&C Blue #1*

**Massachusetts RTK:** Present

**California Directors List of Hazardous Substances:** Present

**FDA - 21 CFR - Total Food Additives** 74.101, 74.1101, 74.2101, 82.101

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
FD&C Blue #1	3844-45-9	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
FD&C Blue #1	3844-45-9	None	None	None	None	None

## U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
FD&C Blue #1	3844-45-9	Not Applicable	Not Applicable

## Canada

### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: Not a dangerous product according to HPR classification criteria.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

### WHMIS 1988 Hazard Class

Non-controlled

### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

## Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
FD&C Blue #1	3844-45-9	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
FD&C Blue #1	3844-45-9	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
FD&C Blue #1	3844-45-9	Not listed

## EU Classification

### EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
FD&C Blue #1	3844-45-9	

### EU - CLP (1272/2008)

### R-phrases(s)

not determined (not applicable)

### S -phrase(s)

none

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
FD&C Blue #1	3844-45-9		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

### Indication of danger:

Not dangerous

## 16. OTHER INFORMATION

**Preparation Date:** 4/16/2014  
**Revision Date:** 7/15/2020  
**Prepared by:** Lab Alley

**Disclaimer:** All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Lab Alley LLC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Lab Alley LLC assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**