

# PATENT BLUE V (VF)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022

Doc No: SDS-958.D01/2



### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
Substance name : PATENT BLUE V (VF)  
EC-No. : 204-934-1  
CAS-No. : 129-17-9  
Type of product : Pure substance  
Formula :  $C_{27}H_{31}N_2NaO_6S_2$   
Synonyms : 1085 Blue / 4,4'-di(diethylamino)-4',6'-disulphotriphenylmethanolanhydride, sodium salt / Acid Blue 1 / Acid Blue V / Acid bright azure Z / Acid Brilliant Blue VF / Acid Brilliant Blue Z / Acid Brilliant Sky Blue Z / Acid Leather Blue V / Aizen Brilliant Acid Pure Blue VH / Alphazurine 2G / Amacid Blue V / ammonium, (4-(alpha-(p-(diethylamino)phenyl)-2,4-disulfobenzylidene)-2,5-cyclohexadien-1-ylidene)diethyl-, hydroxide, monosodium salt / anhydro-4,4'-bis(diethylamino)triphenylmethanol-2',4''-disulphonic acid, monosodium salt / bleu patente V (natrium salt) / Blue 1084 / Blue URS / Blue VRS / Brilliant Acid Blue A Export / Brilliant Acid Blue V Extra / Brilliant Acid Blue VS / Brilliant Blue GS / Bucacid Patent Blue VF / C.I. 42045 / C.I. Acid Blue 1, sodium salt / C.I. Food Blue 3 / Carmin Blue VS / Carmine Blue VF / Disulfine Blue VN / Disulphen Blau / Disulphine Blue VN / Disulphine Blue VN 150 / Disulphine VN / Edicol Supra Blue VR / Erio Brilliant Blue V / Erioglaurine Supra / ethanaminium, N-(4-((4-(diethylamino)phenyl)(2,4-disulfophenyl)methylene)-2,5-cyclohexadien-1-ylidene)-N-ethyl-, inner salt, sodium salt (1:1) / ethanaminium, N-[4-[[4-(diethylamino)phenyl](2,4-disulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-, hydroxide, inner salt, sodium salt / Fenazo Blue XF / Food Blue 3 (natrium salt) / Hexaco Blue VRS / Hexacol Blue VRS / Hidacid Blue V / Intracid Pure Blue V / Kiton Pure Blue V / Kiton Pure Blue V FQ / L-Blau 3 (natrium salt) / Leather Blue G / Lissamine turquoise VN / Merantine Blue VF / N-(4-((4-(diethylamino)phenyl)(2,4-disulfophenyl)methylene)-2,5-cyclohexadien-1-ylidene)-N-ethylethanaminium, hydroxide, inner salt, sodium salt / Patent Blue (natrium salt) / Patent Blue V (natrium salt) / Patent Blue VF / Patent Blue VF Special / Patent Blue VF-CF / Patent Blue Violet / Patent Blue VS / Pontacyl Brilliant Blue V / Sodium Blue VRS / Sodium Patent Blue V / Sulfacid Brilliant Blue 6J / sulfan blue / Sulphan Blue / Sumitomo Patent Pure Blue VX / Tetracid Carmine Blue V / Tetracid Carmine Blue V / Xylene Blue VS

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Dyestuff  
Laboratory chemical

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

ISOLAB Laborgeräte GmbH  
Am Dillhof 2 - 63863 Eschau / GERMANY  
Tel: + 49 93 74 / 978 55-0  
Fax: +49 93 74 / 978 55-29  
[prodsafe@isolab.de](mailto:prodsafe@isolab.de)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 30 19240	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

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### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	%
PATENT BLUE V (VF)	(CAS-No.) 129-17-9 (EC-No.) 204-934-1	≈ 100

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Do not induce vomiting. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : No data available.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: ABC powder. Carbon dioxide. MAJOR FIRE: Water spray. Polyvalent foam. Alcohol-resistant foam.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. No data available on direct fire hazard. INDIRECT FIRE HAZARD. No data available on indirect fire hazard.
Explosion hazard	: DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard.

### 5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Dilute toxic gases with water spray.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
Emergency procedures	: Mark the danger area. Prevent dust cloud formation. No naked flames.
Measures in case of dust release	: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

#### 6.1.2. For emergency responders

No additional information available

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### 6.2. Environmental precautions

No additional information available

### 6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
- Methods for cleaning up : Prevent dust cloud formation. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 7.2. Conditions for safe storage, including any incompatibilities

- Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents.
- Storage area : Keep container in a well-ventilated place. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: No data available. MATERIAL TO AVOID: No data available.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: No data available. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available

#### Hand protection:

Gloves

#### Eye protection:

Safety glasses. In case of dust production: protective goggles

#### Skin and body protection:

Protective clothing

#### Respiratory protection:

Dust production: dust mask with filter type P1

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Solid. Crystalline powder.
- Molecular mass : 566.67 g/mol
- Colour : Dark blue.
- Odour : Odourless.
- Odour threshold : No data available
- pH : No data available
- pH solution : No data available
- Relative evaporation rate (butylacetate=1) : No data available

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Melting point	: 200 °C
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: > 300 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Moderately soluble in water. Water: 1 g/100ml Ethanol: 0.7 g/100ml
Log Pow	: -5.34 (Estimated value)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content	: 0 %
Other properties	: Substance has basic reaction.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide).

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

PATENT BLUE V (VF) (129-17-9)	
LD50 oral rat	3001 mg/kg (Rat)

Skin corrosion/irritation	: Not classified pH: 9.5 (1 %)
Serious eye damage/irritation	: Not classified pH: 9.5 (1 %)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

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Aspiration hazard : Not classified

IARC group : 3

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).  
Ecology - water : Mild water pollutant (surface water). Ground water pollutant. Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC). pH shift. Insufficient data available on ecotoxicity.

#### 12.2. Persistence and degradability

PATENT BLUE V (VF) (129-17-9)	
Persistence and degradability	Biodegradability in water: no data available.

#### 12.3. Bioaccumulative potential

PATENT BLUE V (VF) (129-17-9)	
Log Pow	-5.34 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

Additional information : LWCA (the Netherlands): KGA category 03. Can be considered as non hazardous waste according to Directive 2008/98/EC.

European List of Waste (LoW) code : 07 03 99 - wastes not otherwise specified

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

#### 14.6. Special precautions for user

##### - Overland transport

Not applicable

##### - Transport by sea

Not applicable

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### - Air transport

Not applicable

### - Inland waterway transport

Not applicable

### - Rail transport

Not applicable

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

PATENT BLUE V (VF) is not on the REACH Candidate List

PATENT BLUE V (VF) is not on the REACH Annex XIV List

VOC content : 0 %

#### 15.1.2. National regulations

##### Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 3; ID No. 2946)

WGK remark : Classification water polluting based on the R-phrases in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 3)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Abbreviations and acronyms:

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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IARC	International Agency for Research on Cancer
LC50	Median lethal concentration
LD50	Median lethal dose
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic

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REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

SDS ISOLAB

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*