

# TRYPAN BLUE

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 21/02/2017

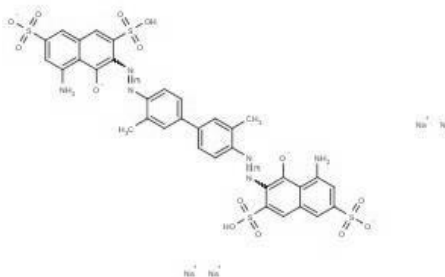
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

|                    |                              |
|--------------------|------------------------------|
| Product form       | : Substance                  |
| Substance name     | : TRYPAN BLUE FOR MICROSCOPY |
| EC Index No        | : 611-024-00-1               |
| EC No              | : 200-786-7                  |
| CAS No             | : 72-57-1                    |
| Type of product    | : Pure substance             |
| Formula            | : C34H24N6Na4O14S4           |
| Chemical structure | :                            |



#### Synonyms

: 2,7-naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl-4,4'-diyl]bis(azo))bis(5-amino-4-hydroxy-, tetrasodium salt / 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo))bis(5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid)]tetrasodium salt / 3,3'-[3,3'-dimethyl-4,4'-biphenylene]bis(azo))bis-(5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid)tetrasodium salt / amanil sky blue / amanil sky blue R / amidine blue 4B / azidinblau 3B / azidine bleu 3B / azurro diretto 3B / bencidal blue 3B / benzaminblau 3B / benzamine blue / benzamine blue 3B / benzanil blue 3BN / benzanil blue R / benzo blue / benzo blue 3B / benzo blue 3BS / bleu diamine / bleue diretto 3B / blue 3B / blue EMB / brasilamina blue 3B / brasilazina blue 3B / C.I. 23850 / C.I. direct blue 14 / C.I. direct blue 14, tetrasodium salt / centraline blue 3B / chloramiblaue 3B / chloramine blue / chloramine blue 3B / chlorazol blue 3B / chrome leather blue 3B / congo blue / congo blue 3B / congoblau 3B / cresotine blue 3B / diamine blue 3B / diamineblue / dianil blue / dianil blue H3G / dianilblau / dianilblau H3G / diaphtamine blue TH / diazine blue 3B / diazol blue 3B / diphenyl blue 3B / direct blue 14 / direct blue 3B / direct blue 3BX / direct blue D3B / direct blue FFN / direct blue H3G / direct blue M3B / directakol blue 3BL / directblau 3B / hispamin blue 3BX / naphthamine blue 2B / naphthamine blue 3BX / naphthaminblau 3BX / naphthamine blue 3BX / naphthylamine blue / niagara blue / niagara blue 3B / orion blue 3B / paramine blue 3B / parkibleu / parkipan / pontamine blue 3BX / pyrazol blue 3B / pyrotroblau / renolblau 3B / sodium ditolyldisazobis-8-amino-1-naphthol-3,6-disulfonate / sodium ditolyldisazobis-8-amino-1-naphthol-3,6-disulphonate / TB / tetrasodium 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo))bis(5-amino-4-hydroxynaphthalene-2,7-disulphonate) / tetrasodium 3,3'-[3,3'-dimethyl-4,4'-biphenylene]bis(azo))bis(5-amino-4-hydroxy-2,7-naphthalenedisulfonate) / trianol direct blue 3B / triazolblau 3BX / tripan blue / trypan blue BPC / trypan blue sodium salt / trypane blue

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

##### 1.2.1. Relevant identified uses

|                                  |                             |
|----------------------------------|-----------------------------|
| Industrial/Professional use spec | : For professional use only |
| Use of the substance/mixture     | : 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)

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### 1.4. Emergency telephone number

| Country | Organisation/Company  | Address                           | Emergency number | Comment |
|---------|---|-----------------------------------|------------------|---------|
| Germany | Giftnotruf der Charité<br>CBF, Haus VIII (Wirtschaftsgebäude), UG | Hindenburgdamm 30<br>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]

Carc. 1B H350

Full text of hazard classes and H-statements : see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H350 - May cause cancer

Precautionary statements (CLP) :

P201 - Obtain special instructions before use  
P308 + P313 - IF exposed or concerned: Get medical advice/ attention.

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

| Name        | Product identifier  | %   |
|-------------|---|-----|
| TRYPAN BLUE | (CAS No) 72-57-1<br>(EC No) 200-786-7<br>(EC Index No) 611-024-00-1 | 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. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion

: Rinse mouth with water. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)). 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/injuries

: No data available.

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

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Alcohol-resistant foam. Polymer foam. Dry chemical powder. Carbon dioxide.  
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. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.  
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. Wash contaminated clothes.  
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

### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

### 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. Dam up the solid spill. Knock down/dilute dust cloud with water spray.  
Methods for cleaning up : Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. 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. Clean contaminated clothing. Do not discharge the waste into the drain. Avoid raising dust. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

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

Incompatible products : Strong acids. Strong bases.  
Incompatible materials : Direct sunlight. Sources of ignition.  
Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.  
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents.  
Storage area : Store in a dry area. Keep locked up. Unauthorized persons are not admitted. 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.

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### 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

#### Personal protective equipment:

Gloves.

#### 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:

Face shield. In case of dust production: protective goggles

| Type                        | Use  | Characteristics | Standard |
|-----------------------------|------|-----------------|----------|
| Face shield, Safety glasses | Dust |                 |          |

#### Skin and body protection:

Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing

#### Respiratory protection:

Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus

| Device   | Filter type | Condition       | Standard |
|--|-------------|-----------------|----------|
| Dust mask, Self-contained breathing apparatus (SCBA) | Type P3     | Dust protection |          |



## SECTION 9: Physical and chemical properties

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

|  |                               |
|--|-------------------------------|
| Physical state                             | : Solid                       |
| Appearance                                 | : Crystalline solid. Powder.  |
| Molecular mass                             | : 960.79 g/mol                |
| Colour                                     | : Dark blue.                  |
| Odour                                      | : No data available on odour. |
| Odour threshold                            | : No data available           |
| pH   | : No data available           |
| Relative evaporation rate (butylacetate=1) | : No data available           |
| Melting point                              | : > 300 °C                    |
| Freezing point                             | : No data available           |
| Boiling point                              | : No data available           |
| Flash point                                | : No data available           |
| Auto-ignition temperature                  | : No data available           |
| Decomposition temperature                  | : No data available           |
| Flammability (solid, gas)                  | : No data available           |
| Vapour pressure                            | : No data available           |
| Relative vapour density at 20 °C           | : No data available           |

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|                      |                     |
|----------------------|---------------------|
| Relative density     | : No data available |
| Solubility           | : Soluble in water. |
| Log Pow              | : No data available |
| 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 %

## 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

No data available.

### 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

| TRYPAN BLUE (72-57-1) |                  |
|-----------------------|------------------|
| LD50 oral rat         | 6200 mg/kg (Rat) |

|                                   |                     |
|-----------------------------------|---------------------|
| Skin corrosion/irritation         | : Not classified    |
| Serious eye damage/irritation     | : Not classified    |
| Respiratory or skin sensitisation | : Not classified    |
| Germ cell mutagenicity            | : Not classified    |
| Carcinogenicity                   | : May cause cancer. |
| Reproductive toxicity             | : Not classified    |
| STOT-single exposure              | : Not classified    |
| STOT-repeated exposure            | : Not classified    |
| Aspiration hazard                 | : Not classified    |
| IARC group                        | : 2B                |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                 |  |
|-----------------|--|
| Ecology - air   | : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). TA-Luft Klasse 5.2.7.1.1/II.   |
| Ecology - water | : Severe water pollutant (surface water). Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC). No data available on ecotoxicity. |

### 12.2. Persistence and degradability

| TRYPAN BLUE (72-57-1)         |   |
|-------------------------------|---|
| Persistence and degradability | Biodegradability in water: no data available. |

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### 12.3. Bioaccumulative potential

| TRYPAN BLUE (72-57-1)     |                                    |
|---------------------------|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

| TRYPAN BLUE (72-57-1)  |  |
|--|--|
| This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  |  |
| This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |  |

### 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. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Dissolve or mix with a combustible solvent. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery.

Additional information : Hazardous waste according to Directive 2008/98/EC.

## 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

#### - Air transport

Not applicable

#### - Inland waterway transport

Not applicable

#### - Rail transport

Not applicable

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### 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

TRYPAN BLUE is not on the REACH Candidate List

TRYPAN BLUE is not on the REACH Annex XIV List

VOC content : 0 %

#### 15.1.2. National regulations

##### Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters

WGK remark : Internal classification water polluting based on the R-phrases according to method VwVwS (Anhang 3)

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

##### Netherlands

Waterbezwaarlijkheid : 3 - May cause cancer

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

##### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

### 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  |
| IARC  | International Agency for Research on Cancer   |
| IATA  | International Air Transport Association   |
| IMDG  | International Maritime Dangerous Goods  |
| LC50  | Median lethal concentration   |
| LD50  | Median lethal dose  |
| PBT   | Persistent Bioaccumulative Toxic  |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| SDS   | Safety Data Sheet   |
| RID   | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |

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|      |  |
|------|--|
| 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.

|                                     |                              |
|-------------------------------------|------------------------------|
| Full text of H- and EUH-statements: |                              |
| Carc. 1B                            | Carcinogenicity, Category 1B |
| H350                                | May cause cancer             |

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*