acc. to Regulation (EC) No. 1907/2006 (REACH)

## Crystal violet (C.I. 42555), p.a.

article number: **T123** Version: **4.0 en** Replaces version of: 2021-06-30 Version: (3)

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

T123

612-204-00-2

208-953-6

548-62-9

## 1.1 Product identifier

Identification of the substance Article number Index No (GB CLP) EC number CAS number Alternative name(s)

4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride

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

Relevant identified uses:

Uses advised against:

Laboratory chemical Laboratory and analytical use

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Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feedingstuffs.

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

Carl Roth GmbH + Co. KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

**Telephone:**+49 (0) 721 - 56 06 0 **Telefax:** +49 (0) 721 - 56 06 149 **e-mail:** sicherheit@carlroth.de **Website:** www.carlroth.de

Competent person responsible for the safety data Department Health, Safety and Environment sheet:

### e-mail (competent person):

## sicherheit@carlroth.de

### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

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# **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

#### **Classification acc. to GHS**

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.6	Carcinogenicity	2	Carc. 2	H351
4.1A	Hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	Hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

For full text of abbreviations: see SECTION 16

## **The most important adverse physicochemical, human health and environmental effects** Spillage and fire water can cause pollution of watercourses.

#### 2.2 Label elements

## Labelling

#### Signal word Danger

#### **Pictograms**

GHS05, GHS07, GHS08, GHS09



#### **Hazard statements**

H302	Harmful if swallowed
H318	Causes serious eye damage
H351	Suspected of causing cancer
H410	Very toxic to aquatic life with long lasting effects

#### **Precautionary statements**

#### **Precautionary statements - prevention**

P273Avoid release to the environmentP280Wear protective gloves/eye protection

#### **Precautionary statements - response**

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses, if present and easy to do. Continue rinsing
P308+P313	IF exposed or concerned: Get medical advice/attention

For professional users only

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#### 2.3 Other hazards

#### Results of PBT and vPvB assessment

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

#### **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\ge 0,1\%$ .

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Name of substance	Crystal violet
Molecular formula	$C_{25H_{30}CIN_{3}}$
Molar mass	408 <sup>g</sup> / <sub>mol</sub>
CAS No	548-62-9
EC No	208-953-6
Index No (GB CLP)	612-204-00-2

### Substance of Very High Concern (SVHC)

Name of substance	CAS No	EC No	Listed in	Remarks
Crystal violet	548-62-9	208-953-6	Candidate list	Carc. A57a

#### Legend

Candidate Substances meeting the criteria referred to in Article 57 and for eventual inclusion in Annex XIV

list Carc. A57a Carcinogenic (article 57a)

Substance, Specific Conc. Limits, M-factors, ATE					
Specific Conc. Limits M-Factors ATE Exposure rout					
-	M-factor (acute) = 10	420 <sup>mg</sup> / <sub>kg</sub>	oral		

# **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures



General notes

Take off contaminated clothing.

#### **Following inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower.

#### Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes hold-



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ing eyelids apart and consult an ophthalmologist.

#### **Following ingestion**

Rinse mouth with water (only if the person is conscious). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

Gastrointestinal complaints, Nausea, Vomiting, Risk of serious damage to eyes, Risk of blindness, Irritant effects, Cough, pain, choking, and breathing difficulties, Headache, Vertigo

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

none

## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings! water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

#### Unsuitable extinguishing media

water jet

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

Combustible.

#### Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride (HCl)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures



#### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe dust.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

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

#### Advice on how to contain a spill

Covering of drains. Take up mechanically.

#### Advice on how to clean up a spill

Take up mechanically. Control of dust.

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

#### 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

Provision of sufficient ventilation. Avoid exposure. Avoid dust formation.

#### Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

#### Measures to protect the environment

Avoid release to the environment.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Store in a dry place. Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### Ventilation requirements

Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

**7.3** Specific end use(s) No information available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters National limit values



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## **Occupational exposure limit values (Workplace Exposure Limits)**

Coun try	Name of agent	CAS No	Identifi- er	TWA [mg/ m³]	STEL [mg/ m³]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
GB	dust		WEL	10			i	EH40/2005
GB	dust		WEL	4			r	EH40/2005
Notation Ceiling-C	Ceiling value is a limit value above which exposure should not occur							

Inhalable fraction Respirable fraction r STEL

Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified) 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) TWA

#### Human health values

Relevant DNELs and other threshold levels							
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time			
DNEL	1,48 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects			
DNEL	0,42 mg/kg bw/ day	human, dermal	worker (industry)	chronic - systemic effects			

#### **Environmental values**

Relevant PNECs and other threshold levels						
End- point	Threshold level	Organism	Environmental com- partment	Exposure time		
PNEC	0,002 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	freshwater	short-term (single instance)		

#### 8.2 **Exposure controls**

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

#### **Eye/face protection**



Use safety goggle with side protection.

#### **Skin protection**



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#### hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a consider-able reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

NBR (Nitrile rubber)

#### material thickness

>0,11 mm

#### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

#### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### **Respiratory protection**



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

#### **Environmental exposure controls**

Keep away from drains, surface and ground water.

## **SECTION 9: Physical and chemical properties**

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

Physical state	solid
Colour	dark green
Odour	odourless
Melting point/freezing point	198 – 250 °C (ECHA)
Boiling point or initial boiling point and boiling range	631,9 °C (ECHA)
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	405,1 °C (ECHA)
Auto-ignition temperature	>190 °C (ECHA) (relative self-ignition temperat- ure for solids)
Decomposition temperature	not relevant

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pH (value)	2,5 – 3,5 (in aqueous solution: 10 <sup>g</sup> / <sub>l</sub> , 20 °C)
Kinematic viscosity	not relevant
Solubility(ies)	
Water solubility	10 <sup>g</sup> / <sub>l</sub> (ECHA)
Partition coefficient	
Partition coefficient n-octanol/water (log value):	1,172 (25 °C) (ECHA)
Vapour pressure	0 Pa at 25 °C
Density and/or relative density	
Density	1,19 <sup>g</sup> / <sub>cm³</sub> at 20 °C
Relative vapour density	Information on this property is not available.
Bulk density	220 – 400 <sup>kg</sup> / <sub>m³</sub>
Particle characteristics	No data available.
Other safety parameters	
Oxidising properties	none
Other information	
Information with regard to physical hazard classes:	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics:	
Surface tension	44,2 <sup>mN</sup> / <sub>m</sub> (ECHA)

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

9.2

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

#### **10.2** Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Strong alkali, Strong acid

#### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

#### **10.5** Incompatible materials

There is no additional information.

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#### **10.6** Hazardous decomposition products

Hazardous combustion products: see section 5.

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### **Classification acc. to GHS**

#### Acute toxicity

Harmful if swallowed.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	420 <sup>mg</sup> / <sub>kg</sub>	rat		TOXNET

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### **Respiratory or skin sensitisation**

Shall not be classified as a respiratory or skin sensitiser.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Suspected of causing cancer.

#### **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.

#### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

vomiting, nausea, gastrointestinal complaints

#### • If in eyes

Causes serious eye damage, risk of blindness

#### • If inhaled

cough, pain, choking, and breathing difficulties

#### • If on skin

Frequently or prolonged contact with skin may cause dermal irritation

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## Other information

Other adverse effects: Headache, Vertigo

- **11.2** Endocrine disrupting properties Does not contain an endocrine disruptor (ED) at a concentration of  $\ge 0,1\%$ .
- 11.3 Information on other hazards

There is no additional information.

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
LC50	0,082 <sup>mg</sup> / <sub>l</sub>	fish	ECHA	96 h
EC50	0,53 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	ECHA	48 h
ErC50	0,21 <sup>mg</sup> / <sub>l</sub>	algae	ECHA	72 h

#### 12.2 Persistence and degradability

Theoretical Oxygen Demand (without nitrification): 2,353  $^{mg}/_{mg}$ Theoretical Oxygen Demand (with nitrification): 2,562  $^{mg}/_{mg}$ Theoretical Carbon Dioxide: 2,697  $^{mg}/_{mg}$ 

#### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	1,172 (25 °C) (ECHA)
---------------------------	----------------------

#### 12.4 Mobility in soil

Data are not available.

# 12.5 Results of PBT and vPvB assessment

Data are not available.

## 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\ge 0,1\%$ .

#### 12.7 Other adverse effects

Data are not available.



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# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

#### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### Properties of waste which render it hazardous

- **HP 4** irritant skin irritation and eye damage
- **HP 6** acute toxicity
- HP 7 carcinogenic
- HP 14 ecotoxic

#### 13.3 Remarks

14.

14.

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

# **SECTION 14: Transport information**

#### 14.1 UN number or ID number

	ADRRID	UN 3077
	IMDG-Code	UN 3077
	ICAO-TI	UN 3077
.2	UN proper shipping name	
	ADRRID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	ICAO-TI	Environmentally hazardous substance, solid, n.o.s.
	Technical name	Crystal violet
.3	Transport hazard class(es)	
	ADRRID	9
	IMDG-Code	9

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	ICAO-TI	9
14.4	Packing group	
	ADRRID	III
	IMDG-Code	III
	ICAO-TI	III
14.5	Environmental hazards	hazardous to the aquatic environment

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

# 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the transport document	UN3077, ENVIRONMENTALLY HAZARDOUS SUB- STANCE, SOLID, N.O.S., (Crystal violet), 9, III, (-)
Classification code	М7
Danger label(s)	9, "Fish and tree"
Environmental hazards	<b>Yes</b> (hazardous to the aquatic environment)
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Tunnel restriction code (TRC)	-
Hazard identification No	90
Emergency Action Code	2Z
Regulations concerning the International Carri information	age of Dangerous Goods by Rail (RID)Additional
Classification code	M7
Danger label(s)	9, "Fish and tree"
Environmental hazards	Yes Hazardous to water
Special provisions (SP)	274, 335, 375, 601

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Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Hazard identification No	90
International Maritime Dangerous Goods (	Code (IMDG) - Additional information
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANC SOLID, N.O.S.
Particulars in the shipper's declaration	UN3077, ENVIRONMENTALLY HAZARDOUS SI STANCE, SOLID, N.O.S., (Crystal violet), 9, III
Marine pollutant	<b>Yes</b> (hazardous to the aquatic environment), (Crystal vio
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	274, 335, 966, 967, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-F
Stowage category	A
International Civil Aviation Organization (I	CAO-IATA/DGR) - Additional information
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Particulars in the shipper's declaration	UN3077, Environmentally hazardous substar solid, n.o.s., (Crystal violet), 9, III
Environmental hazards	<b>Yes</b> (hazardous to the aquatic environment)
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	A97, A158, A179, A197, A215
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

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Seveso	Seveso Directive				
2012/18/EU (Seveso III)					
Νο	Dangerous substance/hazard categories	Qualifying quantity ( plication of lower a quirem		Notes	
E1	environmental hazards (hazardous to the aquatic en- vironment, cat. 1)	100	200	56)	

#### Notation

56) Hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

#### **Deco-Paint Directive**

VOC content	0 %
VOC content	0 g/l

#### **Industrial Emissions Directive (IED)**

VOC content	0 %
VOC content	0 g/I

# Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

# Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

#### Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Crystal violet	Organohalogen compounds and substances which may form such compounds in the aquatic envir- onment		a)	
Crystal violet	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		a)	

**Legend** a)

Indicative list of the main pollutants

## Regulation on the marketing and use of explosives precursors

not listed

**Regulation on drug precursors** 

not listed

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### **Regulation on substances that deplete the ozone layer (ODS)**

not listed

#### Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

### **Regulation on persistent organic pollutants (POP)**

not listed

#### National regulations(GB)

#### List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

Substance of Very High Concern (SVHC) acc. to GB REACH and HSE			
Name of substance	CAS No	Listed in	Remarks
Crystal violet	548-62-9	Candidate list	Carc. A57a desc-cand-23

Legend

23

Candidate Substances meeting the criteria referred to in Article 57 and for eventual inclusion in Annex XIV

# list

Carc. A57a Carcinogenic (Article 57a) desc-cand- With  $\ge 0.1\%$  of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)

## **Restrictions according to GB REACH, Annex 17**

gerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	No
Crystal violet	[4-[4,4'-bis(dimethylamino)benzhy- drylidene]cyclohexa-2,5-dien-1-ylidene]di- methylammonium chloride; C.I. Basic Viol- et 3 with ≥ 0,1 % of Michler's ketone (EC no. 202-027-5)	548-62-9	72

#### **Other information**

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### National inventories

Country	Inventory	Status
AU	AIIC	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
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
РН	PICCS	substance is listed

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Country	Inventory	Status
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)
VN	NCI	substance is listed
Legend		

AIIC CSCL-ENCS	Australian Inventory of Industrial Chemicals 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
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
	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.

# **SECTION 16: Other information**

## Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Danger		yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
14.8		Regulations concerning the International Car- riage of Dangerous Goods by Rail (RID)Addition- al information	yes
14.8		Classification code: M7	yes
14.8		Danger label(s): 9, "Fish and tree"	yes
14.8		Danger label(s): change in the listing (table)	yes
14.8		Environmental hazards: Yes Hazardous to water	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety relev- ant
14.8		Special provisions (SP): 274, 335, 375, 601	yes
14.8		Excepted quantities (EQ): E1	yes
14.8		Limited quantities (LQ): 5 kg	yes
14.8		Transport category (TC): 3	yes
14.8		Hazard identification No: 90	yes
15.1	Restrictions according to REACH, Annex XVII		yes
15.1		Dangerous substances with restrictions (REACH, Annex XVII): change in the listing (table)	yes
15.1	List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list		yes
15.1		Substance of Very High Concern (SVHC): change in the listing (table)	yes
15.1	VOC content: 0 % 0 <sup>g</sup> / <sub>l</sub>	VOC content: 0 %	yes
15.1		VOC content: 0 <sup>g</sup> / <sub>l</sub>	yes
15.1		National regulations(GB)	yes
15.1		List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list	yes
15.1		Substance of Very High Concern (SVHC) acc. to GB REACH and HSE: change in the listing (table)	yes
15.1		Restrictions according to GB REACH, Annex 17	yes
15.1		Dangerous substances with restrictions (GB REACH, Annex 17): change in the listing (table)	yes
15.1		Other information: Directive 94/33/EC on the protection of young people at work. Observe employment restric- tions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.	yes
15.1		National inventories: change in the listing (table)	yes

## Abbreviations and acronyms

acc. to Regulation (EC) No. 1907/2006 (REACH)



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#### article number: **T123**

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	= EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
HSE	Health and Safety Executive
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Crystal violet (C.I. 42555), p.a.

#### article number: **T123**

Abbr.	Descriptions of used abbreviations
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

#### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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 section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

#### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.