








# FLYLEAF

## Article: HP02 Gram staining kit for microscopy

Date of compilation: 2021-10-26

### 1 Composition/information on ingredients

#### Bill of materials

Name of substance	Identifier	Number of pieces	Classification acc. to GHS	Pictograms	Page
Carbol gentian violet solution	Article number CN00	1	Flam. Liq. 3 / H226 Eye Irrit. 2A / H319	 	5 – 21
Iodine-potassium iodide solution acc. to Lugol	Article number N052	1	Lact. / H362 STOT RE 2 / H373		22 – 33
Gram's decolourising solution	Article number CN02	1	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	 	34 – 50
Carbolic fuchsine solution	Article number A130	1	Skin Corr. 1B / H314 Eye Dam. 1 / H318 Muta. 2 / H341	 	51 – 67

# Article: HP02 Gram staining kit

## 2 Hazards identification

### 2.1 Label elements

**Signal word** Danger

**Labelling according to Regulation (EC) No 1272/2008 (CLP)**

#### Pictograms

Danger.



#### Hazard statement(s)

H225	Highly flammable liquid and vapour
H314	Causes severe skin burns and eye damage
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects (if exposed)
H373	May cause damage to organs (thyroid gland) through prolonged or repeated exposure

#### Precautionary statements

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

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P260	Do not breathe dusts or mists
P280	Wear eye protection/face protection

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

P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

##### **Precautionary statements - storage**

P403+P233	Store in a well-ventilated place. Keep container tightly closed
P403+P235	Store in a well-ventilated place. Keep cool

#### Additional labelling requirements



For professional users only.

#### Supplemental hazard information

EUH066	Repeated exposure may cause skin dryness or cracking
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## Article: HP02 Gram staining kit

### 3 Transport information

<b>3.1 UN number</b>	
<b>UN RTDG</b>	UN 2924
IMDG-Code	UN 2924
ICAO-TI	UN 2924
<b>3.2 UN proper shipping name</b>	
<b>UN RTDG</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
IMDG-Code	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
ICAO-TI	Flammable liquid, corrosive, n.o.s.
Technical name	Ethanol, Phenol
<b>3.3 Transport hazard class(es)</b>	
<b>UN RTDG</b>	3 (8)
IMDG-Code	3 (8)
ICAO-TI	3 (8)
<b>3.4 Packing group</b>	
<b>UN RTDG</b>	II
IMDG-Code	II
ICAO-TI	II
<b>3.5 Environmental hazards</b>	non-environmentally hazardous acc. to the dangerous goods regulations
<b>3.6 Special precautions for user</b>	
There is no additional information.	
<b>3.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	
The cargo is not intended to be carried in bulk.	
<b>3.8 Information for each of the UN Model Regulations</b>	
<b>Transport informationNational regulationsAdditional information(UN RTDG)</b>	
<b>UN number</b>	2924
<b>Proper shipping name</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
<b>Class</b>	3
<b>Subsidiary risk(s)</b>	8
<b>Packing group</b>	II
<b>Danger label(s)</b>	3+8
 	
<b>Special provisions (SP)</b>	274 UN RTDG
<b>Excepted quantities (EQ)</b>	E2 UN RTDG
<b>Limited quantities (LQ)</b>	1 L UN RTDG

## Article: HP02 Gram staining kit

### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Particulars in the shipper's declaration	UN2924, FLAMMABLE LIQUID, CORROSIVE, N.O.S., (Ethanol, Phenol), 3 (8), II, <23°C c.c.
Marine pollutant	-
Danger label(s)	3+8



Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, S-C
Stowage category	B

### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name	Flammable liquid, corrosive, n.o.s.
Particulars in the shipper's declaration	UN2924, Flammable liquid, corrosive, n.o.s., (Ethanol, Phenol), 3 (8), II
Danger label(s)	3+8



Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Carbol gentian violet solution for microscopy

article number: **CN00**

Version: **GHS 3.0 en**

Replaces version of: 2019-08-27

Version: (GHS 2)

date of compilation: 2018-05-25

Revision: 2021-10-12

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

### 1.1 Product identifier

Identification of the substance

**Carbol gentian violet solution** for microscopy

Article number

CN00

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

Relevant identified uses:

Laboratory chemical  
Laboratory and analytical use

Uses advised against:

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

### 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](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

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

**e-mail (competent person):**

[sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 Westmead, NSW	131126	

## 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
2.6	Flammable liquid	3	Flam. Liq. 3	H226
3.3	Serious eye damage/eye irritation	2A	Eye Irrit. 2A	H319

For full text of abbreviations: see SECTION 16

**The most important adverse physicochemical, human health and environmental effects**

The product is combustible and can be ignited by potential ignition sources.

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## Carbol gentian violet solution for microscopy

article number: CN00

### 2.2 Label elements

#### Labelling

#### Signal word

Warning

#### Pictograms

GHS02, GHS07



#### Hazard statements

H226 Flammable liquid and vapour  
H319 Causes serious eye irritation

#### Precautionary statements

##### Precautionary statements - prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

##### Precautionary statements - response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
P337+P313 If eye irritation persists: Get medical advice/attention  
P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

##### Precautionary statements - storage

P403+P235 Store in a well-ventilated place. Keep cool

##### Precautionary statements - disposal

P501 Dispose of contents/container to industrial combustion plant

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

Name of sub-stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Ethanol	CAS No 64-17-5	10 - < 25	Flam. Liq. 2 / H225 Eye Irrit. 2A / H319		IARC: 1


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Name of sub-stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Phenol	CAS No 108-95-2	0.3 – < 1	Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 3 / H331 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Muta. 2 / H341 STOT RE 2 / H373	 	

### Notes

IARC: 1: IARC group 1: carcinogenic to humans (International Agency for Research on Cancer)

For full text of abbreviations: see SECTION 16

## 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. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Irritation, Headache, Vertigo, Nausea, Vomiting

### 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 spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

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### Unsuitable extinguishing media

water jet

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

Ingredients of the mixture: combustible. Vapours may form explosive mixtures with air. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

### Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. 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

Do not breathe vapour/spray. Avoid contact with skin and eyes. Avoidance of ignition sources.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Danger of explosion.

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

#### Advice on how to contain a spill

Covering of drains.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

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

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provide adequate ventilation. When not in use, keep containers tightly closed.

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



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

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### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

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

Keep container tightly closed in a cool place.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### 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

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

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m <sup>3</sup> ]	STE L [pp m]	STEL [mg/ m <sup>3</sup> ]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m <sup>3</sup> ]	Nota- tion	Source
AU	phenol	108-95-2	WES	1	4						WES
AU	glycerine	56-81-5	WES		10					mist	WES
AU	ethyl alcohol (ethan- ol)	64-17-5	WES	1,00 0	1,880						WES

#### Notation

Ceiling-C  
mist  
STEL  
TWA

Ceiling value is a limit value above which exposure should not occur  
As mists  
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)

#### Relevant DNELs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
Ethanol	64-17-5	DNEL	1,900 mg/ m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - systemic effects
Ethanol	64-17-5	DNEL	343 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
Ethanol	64-17-5	DNEL	950 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - systemic effects

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Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Phenol	108-95-2	DNEL	8 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Phenol	108-95-2	DNEL	16 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
Phenol	108-95-2	DNEL	1.23 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Ethanol	64-17-5	PNEC	0.79 mg/cm <sup>3</sup>	unknown	marine water	intermittent release
Ethanol	64-17-5	PNEC	2.75 mg/cm <sup>3</sup>	unknown	air	intermittent release
Ethanol	64-17-5	PNEC	3.6 mg/cm <sup>3</sup>	unknown	freshwater sediment	intermittent release
Ethanol	64-17-5	PNEC	580 mg/cm <sup>3</sup>	unknown	sewage treatment plant (STP)	intermittent release
Ethanol	64-17-5	PNEC	0.63 mg/cm <sup>3</sup>	unknown	soil	intermittent release
Ethanol	64-17-5	PNEC	0.96 mg/cm <sup>3</sup>	unknown	freshwater	intermittent release
Phenol	108-95-2	PNEC	0.008 mg/l	aquatic organisms	freshwater	short-term (single instance)
Phenol	108-95-2	PNEC	0.001 mg/l	aquatic organisms	marine water	short-term (single instance)
Phenol	108-95-2	PNEC	2.1 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Phenol	108-95-2	PNEC	0.091 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Phenol	108-95-2	PNEC	0.009 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Phenol	108-95-2	PNEC	0.136 mg/kg	terrestrial organisms	soil	short-term (single instance)

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

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### Skin protection



#### • 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 considerable 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

0,4 mm

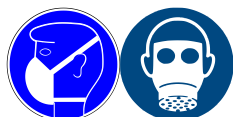
#### • breakthrough times of the glove material

>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: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

### 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	liquid
Colour	blue - violet
Odour	faintly perceptible - like: - Phenol
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	>90 °C at 1,013 hPa
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	not determined
Flash point	58 °C

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Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	6 – 8 (20 °C)
Kinematic viscosity	not determined
<u>Solubility(ies)</u>	
Water solubility	miscible in any proportion
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	this information is not available
Vapour pressure	not determined
Density	0.99 g/cm <sup>3</sup> at 20 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)
<u>Other safety parameters</u>	
Oxidising properties	none

**9.2 Other information**

Information with regard to physical hazard classes:

Flammable liquids	
Sustained combustibility	yes, sustained combustion was observed
Other safety characteristics:	
Miscibility	completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition.

#### **If heated**

Risk of ignition. Vapours may form explosive mixtures with air.

### 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

**Carbol gentian violet solution for microscopy**article number: **CN00****10.4 Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**10.5 Incompatible materials**

There is no additional information.

**10.6 Hazardous decomposition products**

Hazardous combustion products: see section 5.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

Test data are not available for the complete mixture.

**Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**Classification acc. to GHS****Acute toxicity**

Shall not be classified as acutely toxic.

**Acute toxicity estimate (ATE) of components of the mixture**

Name of substance	CAS No	Exposure route	ATE
Phenol	108-95-2	oral	317 mg/kg
Phenol	108-95-2	dermal	630 mg/kg
Phenol	108-95-2	inhalation: dust/mist	0.5 mg/l/4h

**Acute toxicity of components of the mixture**

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Ethanol	64-17-5	inhalation: vapour	LC50	95.6 mg/l/4h	rat
Ethanol	64-17-5	oral	LD50	7,060 mg/kg	rat
Phenol	108-95-2	oral	LD50	317 mg/kg	rat
Phenol	108-95-2	dermal	LD50	630 mg/kg	rabbit

**Skin corrosion/irritation**

Shall not be classified as corrosive/irritant to skin.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**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.

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### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

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

### Specific target organ toxicity - repeated exposure

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

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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

#### • If swallowed

nausea, vomiting

#### • If in eyes

Causes serious eye irritation

#### • If inhaled

vertigo, headache

#### • If on skin

Data are not available.

#### • Other information

none

## 11.2 Endocrine disrupting properties

None of the ingredients are listed.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components of the mixture					
Name of sub-stance	CAS No	Endpoint	Value	Species	Exposure time
Ethanol	64-17-5	LC50	8,140 mg/l	orfe (Leuciscus idus)	96 h
Ethanol	64-17-5	EC50	9,000 – 14,000 mg/l	daphnia magna	48 h
Phenol	108-95-2	LC50	8.9 mg/l	fish	96 h
Phenol	108-95-2	EC50	3.1 mg/l	aquatic invertebrates	48 h

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### Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Phenol	108-95-2	LC50	21.93 mg/l	fish	14 d
Phenol	108-95-2	EC50	10 mg/l	aquatic invertebrates	16 d

### Biodegradation

Data are not available.

## 12.2 Process of degradability

### Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Ethanol	64-17-5	biotic/abiotic	94 %	d		
Phenol	108-95-2	biotic/abiotic	85 %	14 d		
Phenol	108-95-2	carbon dioxide generation	45.5 %	3 d		ECHA
Phenol	108-95-2	oxygen depletion	96 %	20 d		ECHA

## 12.3 Bioaccumulative potential

Data are not available.

### Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Ethanol	64-17-5		-0.31	
Phenol	108-95-2	17.5	1.47 (30 °C)	

## 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

None of the ingredients are listed.

## 12.7 Other adverse effects

Data are not available.

## Carbol gentian violet solution for microscopy

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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.

#### Waste treatment of containers/packagings

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H3** Flammable liquids

#### 13.3 Remarks

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.

### SECTION 14: Transport information

#### 14.1 UN number

<b>UN RTDG</b>	UN 1993
IMDG-Code	UN 1993
ICAO-TI	UN 1993

#### 14.2 UN proper shipping name

<b>UN RTDG</b>	FLAMMABLE LIQUID, N.O.S.
IMDG-Code	FLAMMABLE LIQUID, N.O.S.
ICAO-TI	Flammable liquid, n.o.s.
Technical name (hazardous ingredients)	Ethanol, Phenol

#### 14.3 Transport hazard class(es)

<b>UN RTDG</b>	3
IMDG-Code	3
ICAO-TI	3

#### 14.4 Packing group

<b>UN RTDG</b>	III
IMDG-Code	III
ICAO-TI	III

#### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

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### 14.6 Special precautions for user

There is no additional information.

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

The cargo is not intended to be carried in bulk.

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

#### Transport informationNational regulationsAdditional information(UN RTDG)

UN number 1993

Class 3

Packing group III

Danger label(s) 3



Special provisions (SP) 223, 274  
UN RTDG

Excepted quantities (EQ) E1  
UN RTDG

Limited quantities (LQ) 5 L  
UN RTDG

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name FLAMMABLE LIQUID, N.O.S.

Particulars in the shipper's declaration UN1993, FLAMMABLE LIQUID, N.O.S., (contains: Ethanol, Phenol), 3, III, 58°C c.c.

Marine pollutant -

Danger label(s) 3



Special provisions (SP) 223, 274, 955

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

EmS F-E, S-E

Stowage category A

#### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name Flammable liquid, n.o.s.

Particulars in the shipper's declaration UN1993, Flammable liquid, n.o.s., (contains: Ethanol, Phenol), 3, III

Danger label(s) 3



Special provisions (SP) A3

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## Carbol gentian violet solution for microscopy

article number: **CN00**

Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 L

## SECTION 15: Regulatory information

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

There is no additional information.

#### National regulations(Australia)

##### Australian Inventory of Chemical Substances(AICS)

All ingredients are listed or exempt from listing.

#### 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	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	not all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	not all ingredients are listed

#### Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## Carbol gentian violet solution for microscopy

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### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

Alignment to regulation: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.1		The most important adverse physicochemical, human health and environmental effects: The product is combustible and can be ignited by potential ignition sources.	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Warning		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	Other hazards: There is no additional information.	Other hazards	yes
2.3		Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	yes

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
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

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Abbr.	Descriptions of used abbreviations
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
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
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
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
Muta.	Germ cell mutagenicity
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
TWA	Time-weighted average
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne contaminants

### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

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## Carbol gentian violet solution for microscopy

article number: **CN00**

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H373	May cause damage to organs through prolonged or repeated exposure.

### Disclaimer

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

# Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: **N052**

Version: **GHS 2.1 en**

Replaces version of: 2019-08-27

Version: (GHS 2)

date of compilation: 2019-07-10

Revision: 2021-03-03

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

### 1.1 Product identifier

Identification of the substance

**Iodine-potassium iodide solution acc. to Lugol**  
for microscopy

Article number

N052

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

Relevant identified uses:

Laboratory chemical  
Laboratory and analytical use

Uses advised against:

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

### 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](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

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

**e-mail (competent person):**

**[sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)**

### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 Westmead, NSW	131126	

## 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
3.7L	Effects on or via lactation	L	Lact.	H362
3.9	Specific target organ toxicity - repeated exposure	2	STOT RE 2	H373

For full text of abbreviations: see SECTION 16

**The most important adverse physicochemical, human health and environmental effects**

Delayed or immediate effects can be expected after short or long-term exposure.

# Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: N052

### 2.2 Label elements

#### Labelling

#### Signal word

Warning

#### Pictograms

GHS08



#### Hazard statements

H362

May cause harm to breast-fed children

H373

May cause damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed)

#### Precautionary statements

##### Precautionary statements - prevention

P201

Obtain special instructions before use

P260

Do not breathe dusts or mists

P263

Avoid contact during pregnancy/while nursing

##### Precautionary statements - response

P308+P313

IF exposed or concerned: Get medical advice/attention

P314

Get medical advice/attention if you feel unwell

##### Precautionary statements - disposal

P501

Dispose of contents/container to industrial combustion plant

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

This product does not meet the criteria for classification in any hazard class according to GHS

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acc. to Safe Work Australia - Code of Practice



## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: N052

### 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. In all cases of doubt, or when symptoms persist, seek medical advice.

##### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

##### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Symptoms and effects are not known to date.

#### 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 spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

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

Non-combustible.

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: N052

### SECTION 6: Accidental release measures

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



##### For non-emergency personnel

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

##### Advice on how to contain a spill

Covering of drains.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

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

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

No special measures are necessary.

##### 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

Keep container tightly closed.

##### Incompatible substances or mixtures

Observe hints for combined storage.

##### Consideration of other advice

##### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

#### 7.3 Specific end use(s)

No information available.

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## Iodine-potassium iodide solution acc. to Lugol for microscopy

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### National limit values

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

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m <sup>3</sup> ]	STE L [pp m]	STEL [mg/ m <sup>3</sup> ]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m <sup>3</sup> ]	Nota- tion	Source
AU	iodine	7553-56-2	WES					0.1	1		WES

##### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

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)

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

#### 8.2 Exposure controls

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

##### Eye/face protection



Use safety goggle with side protection.

##### Skin protection



##### • 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 considerable 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)

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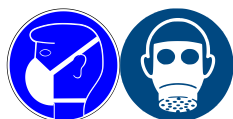
## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: **N052**

### • other protection measures

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

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation.

### 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	liquid
Colour	light brown
Odour	characteristic
Melting point/freezing point	0 °C
Boiling point or initial boiling point and boiling range	100 °C
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined
<u>Solubility(ies)</u>	
Water solubility	miscible in any proportion
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	not relevant (inorganic)
Vapour pressure	not determined
Density	1.12 g/cm <sup>3</sup> at 20 °C
Particle characteristics	no data available

# Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: **N052**

### Other safety parameters

Oxidising properties none

### 9.2 Other information

Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Miscibility completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 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

No known hazardous reactions.

### 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.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### **Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

##### **Acute toxicity**

Shall not be classified as acutely toxic.

##### **Skin corrosion/irritation**

Shall not be classified as corrosive/irritant to skin.

##### **Serious eye damage/eye irritation**

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

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

Shall not be classified as a respiratory or skin sensitiser.

##### **Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

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## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: **N052**

### **Carcinogenicity**

Shall not be classified as carcinogenic.

### **Reproductive toxicity**

May cause harm to breast-fed children.

### **Specific target organ toxicity - single exposure**

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

### **Specific target organ toxicity - repeated exposure**

May cause damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed).

Hazard category	Target organ	Exposure route
2	thyroid gland	if swallowed

### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

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

#### **• If swallowed**

Data are not available.

#### **• If in eyes**

Data are not available.

#### **• If inhaled**

Data are not available.

#### **• If on skin**

Data are not available.

#### **• Other information**

none

### **11.2 Endocrine disrupting properties**

None of the ingredients are listed.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Harmful to aquatic life.

### **Biodegradation**

The methods for determining the biological degradability are not applicable to inorganic substances.

### **12.2 Process of degradability**

Data are not available.

### **12.3 Bioaccumulative potential**

Data are not available.

### **12.4 Mobility in soil**

Data are not available.

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## Iodine-potassium iodide solution acc. to Lugol for microscopy

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### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

None of the ingredients are listed.

### 12.7 Other adverse effects

Data are not available.

## 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.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H11** Toxic (Delayed or chronic)

### 13.3 Remarks

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.

## SECTION 14: Transport information

- |  |   |
|--|---|
| <b>14.1 UN number</b>  | not subject to transport regulations                                  |
| <b>14.2 UN proper shipping name</b>  | not assigned  |
| <b>14.3 Transport hazard class(es)</b>   | not assigned  |
| <b>14.4 Packing group</b>  | not assigned  |
| <b>14.5 Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6 Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

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

##### Transport informationNational regulationsAdditional information(UN RTDG)

not assigned

##### International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

##### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

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## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: **N052**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

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

There is no additional information.

##### National regulations(Australia)

##### Australian Inventory of Chemical Substances(AICS)

All ingredients are listed or exempt from listing.

##### National inventories

Country	Inventory	Status
AU	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

##### Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

#### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

# Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: **N052**

### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

Alignment to regulation: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Restructuring: section 9, section 14

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
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)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
STEL	Short-term exposure limit
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne conatminants

#### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

#### Classification procedure

Physical and chemical properties. The classification is based on tested mixture.

Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H362	May cause harm to breast-fed children.
H373	May cause damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed).

# Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Iodine-potassium iodide solution acc. to Lugol for microscopy

article number: **N052**

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### Disclaimer

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

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Gram's decolourising solution , ready-to-use, for microscopy

article number: **CN02**

Version: **GHS 3.0 en**

Replaces version of: 2019-08-27

Version: (GHS 2)

date of compilation: 2018-05-25

Revision: 2021-09-13

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

### 1.1 Product identifier

Identification of the substance

**Gram's decolourising solution , ready-to-use, for microscopy**

Article number

CN02

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

Relevant identified uses:

Laboratory chemical  
Laboratory and analytical use

Uses advised against:

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

### 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](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

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

**e-mail (competent person):**

**[sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)**

### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 Westmead, NSW	131126	

## 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
2.6	Flammable liquid	2	Flam. Liq. 2	H225
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.8D	Specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Gram's decolourising solution , ready-to-use, for microscopy

article number: CN02

### Supplemental hazard information

Code	Supplemental hazard information
EUH066	repeated exposure may cause skin dryness or cracking

For full text of abbreviations: see SECTION 16

### The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

## 2.2 Label elements

### Labelling

#### Signal word

**Danger**

#### Pictograms

GHS02, GHS07



#### Hazard statements

H225 Highly flammable liquid and vapour  
H319 Causes serious eye irritation  
H336 May cause drowsiness or dizziness

#### Precautionary statements

##### Precautionary statements - prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

##### 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  
P312 Call a POISON CENTER or doctor/physician if you feel unwell  
P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

##### Precautionary statements - storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed  
P403+P235 Store in a well-ventilated place. Keep cool

##### Precautionary statements - disposal

P501 Dispose of contents/container to industrial combustion plant

### Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

**Hazardous ingredients for labelling:** Acetone

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### 2.3 Other hazards

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.





## SECTION 3: Composition/information on ingredients

### 3.1 Substances

not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

Name of sub-stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Ethanol	CAS No 64-17-5	70 – 80	Flam. Liq. 2 / H225 Eye Irrit. 2A / H319	 	IARC: 1
Acetone	CAS No 67-64-1	20 – 30	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336 EUH066	 	

#### Notes

IARC: 1: IARC group 1: carcinogenic to humans (International Agency for Research on Cancer)

For full text of abbreviations: see SECTION 16

## 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

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Irritation, Nausea, Vomiting, Abdominal pain, Breathing difficulties, Vertigo, Drowsiness, Narcosis, Loss of righting reflex, and ataxia, Dizziness, Drowsiness, Narcosis

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

none

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



##### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

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

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours may form explosive mixtures with air.

##### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), May produce toxic fumes of carbon monoxide if burning.

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. 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

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Danger of explosion.

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

##### Advice on how to contain a spill

Covering of drains.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

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### 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.

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



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage

of vapours into cellars, flues and ditches.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

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

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### 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)

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil ing- C [mg/ m³]	Nota- tion	Source
AU	ethyl alcohol (ethan- ol)	64-17-5	WES	1,00 0	1,880						WES
AU	acetone	67-64-1	WES	500	1,185	1,00 0	2,375				WES

#### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

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)

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

### Relevant DNELs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
Ethanol	64-17-5	DNEL	1,900 mg/ m³	human, inhalat- ory	worker (industry)	acute - systemic effects
Ethanol	64-17-5	DNEL	343 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
Ethanol	64-17-5	DNEL	950 mg/m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
Acetone	67-64-1	DNEL	1,210 mg/ m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
Acetone	67-64-1	DNEL	2,420 mg/ m³	human, inhalat- ory	worker (industry)	acute - local ef- fects
Acetone	67-64-1	DNEL	186 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

### Relevant PNECs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Ethanol	64-17-5	PNEC	0.79 mg/cm³	unknown	marine water	intermittent re- lease
Ethanol	64-17-5	PNEC	2.75 mg/cm³	unknown	air	intermittent re- lease
Ethanol	64-17-5	PNEC	3.6 mg/cm³	unknown	freshwater sedi- ment	intermittent re- lease
Ethanol	64-17-5	PNEC	580 mg/cm³	unknown	sewage treatment plant (STP)	intermittent re- lease
Ethanol	64-17-5	PNEC	0.63 mg/cm³	unknown	soil	intermittent re- lease
Ethanol	64-17-5	PNEC	0.96 mg/cm³	unknown	freshwater	intermittent re- lease
Acetone	67-64-1	PNEC	10.6 mg/l	aquatic organ- isms	freshwater	short-term (single instance)

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Acetone	67-64-1	PNEC	1.06 mg/l	aquatic organisms	marine water	short-term (single instance)
Acetone	67-64-1	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Acetone	67-64-1	PNEC	30.4 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Acetone	67-64-1	PNEC	3.04 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Acetone	67-64-1	PNEC	29.5 mg/kg	terrestrial organisms	soil	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



#### • 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 considerable 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

Butyl caoutchouc (butyl rubber)

#### • material thickness

0,7mm

#### • 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.

Flame-retardant protective clothing.

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### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

### 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	liquid
Colour	colourless
Odour	like: - alcohol
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	78 °C
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	3.5 vol% - 15 vol%
Flash point	12 °C
Auto-ignition temperature	425 °C (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	7 (20 °C)
Kinematic viscosity	not determined
<u>Solubility(ies)</u>	
Water solubility	miscible in any proportion
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	this information is not available
Vapour pressure	59 hPa at 20 °C
Density	0.8 g/cm <sup>3</sup> at 20 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)

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### Other safety parameters

Oxidising properties none

### 9.2 Other information

Information with regard to physical hazard classes:

Flammable liquids

Sustained combustibility yes, sustained combustion was observed

Other safety characteristics:

Miscibility completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition. Vapours may form explosive mixtures with air.

#### If heated

Risk of ignition.

### 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, Alkali metals, Alkaline earth metal, Acetic anhydride, Peroxides, Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>), Nitric acid, Nitrate, Perchlorates,  
=> Explosive properties

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification acc. to GHS

#### Acute toxicity

Shall not be classified as acutely toxic.

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Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Ethanol	64-17-5	inhalation: vapour	LC50	95.6 mg/l/4h	rat
Ethanol	64-17-5	oral	LD50	7,060 mg/kg	rat
Acetone	67-64-1	oral	LD50	5,800 mg/kg	rat

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### 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

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

### 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, abdominal pain, nausea, Causes damage to liver through prolonged or repeated exposure if swallowed, loss of righting reflex, and ataxia

#### • If in eyes

Causes serious eye irritation

#### • If inhaled

drowsiness, narcosis, vertigo, breathing difficulties, Inebriation, fatigue, narcosis

#### • If on skin

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation)

#### • Other information

none

**Gram's decolourising solution , ready-to-use, for microscopy**article number: **CN02****11.2 Endocrine disrupting properties**

None of the ingredients are listed.

**SECTION 12: Ecological information****12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

**Aquatic toxicity (acute) of components of the mixture**

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Ethanol	64-17-5	LC50	8,140 mg/l	orfe (Leuciscus idus)	96 h
Ethanol	64-17-5	EC50	9,000 – 14,000 mg/l	daphnia magna	48 h
Acetone	67-64-1	LC50	5,540 mg/l	fish	96 h

**Aquatic toxicity (chronic) of components of the mixture**

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Acetone	67-64-1	EC50	61.15 g/l	microorganisms	30 min

**Biodegradation**

Data are not available.

**12.2 Process of degradability****Degradability of components of the mixture**

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Ethanol	64-17-5	biotic/abiotic	94 %	d		
Acetone	67-64-1	carbon dioxide generation	90.9 %	28 d		ECHA

**12.3 Bioaccumulative potential**

Data are not available.

**Bioaccumulative potential of components of the mixture**

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Ethanol	64-17-5		-0.31	
Acetone	67-64-1		-0.23	

**12.4 Mobility in soil**

Data are not available.

**12.5 Results of PBT and vPvB assessment**

Data are not available.

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## 12.6 Endocrine disrupting properties

None of the ingredients are listed.

## 12.7 Other adverse effects

Data are not available.

## 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.

#### Waste treatment of containers/packageings

Only packageings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H3** Flammable liquids

### 13.3 Remarks

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.

## SECTION 14: Transport information

### 14.1 UN number

<b>UN RTDG</b>	UN 1993
IMDG-Code	UN 1993
ICAO-TI	UN 1993

### 14.2 UN proper shipping name

<b>UN RTDG</b>	FLAMMABLE LIQUID, N.O.S.
IMDG-Code	FLAMMABLE LIQUID, N.O.S.
ICAO-TI	Flammable liquid, n.o.s.
Technical name (hazardous ingredients)	Ethanol, Acetone

### 14.3 Transport hazard class(es)

<b>UN RTDG</b>	3
IMDG-Code	3
ICAO-TI	3

### 14.4 Packing group

<b>UN RTDG</b>	II
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IMDG-Code	II
ICAO-TI	II
<b>14.5 Environmental hazards</b>	non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user


There is no additional information.

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


The cargo is not intended to be carried in bulk.

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

#### Transport informationNational regulationsAdditional information(UN RTDG)

UN number	1993
Class	3
Packing group	II
Danger label(s)	3
	
Special provisions (SP)	274 UN RTDG
Excepted quantities (EQ)	E2 UN RTDG
Limited quantities (LQ)	1 L UN RTDG

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name	FLAMMABLE LIQUID, N.O.S.
Particulars in the shipper's declaration	UN1993, FLAMMABLE LIQUID, N.O.S., (contains: Ethanol, Acetone), 3, II, 12°C c.c.
Marine pollutant	-
Danger label(s)	3
	
Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, <u>S-E</u>
Stowage category	B

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### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name	Flammable liquid, n.o.s.
Particulars in the shipper's declaration	UN1993, Flammable liquid, n.o.s., (contains: Ethanol, Acetone), 3, II
Danger label(s)	3
	
Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

## SECTION 15: Regulatory information

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

There is no additional information.

#### National regulations(Australia)

##### Australian Inventory of Chemical Substances(AICS)

All ingredients are listed or exempt from listing.

#### 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.

#### UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances

Name of substance	CAS No	Listed in	HS code
Acetone	67-64-1	Table II	2914.11

#### National inventories

Country	Inventory	Status
AU	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	all ingredients are listed
TW	TCSI	all ingredients are listed

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Country	Inventory	Status
US	TSCA	all ingredients are listed

### Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSC	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
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

Alignment to regulation: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.1		Supplemental hazard information: change in the listing (table)	yes
2.1	The most important adverse physicochemical, human health and environmental effects: Narcotic effects.	The most important adverse physicochemical, human health and environmental effects: The product is combustible and can be ignited by potential ignition sources.	yes
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
2.2	contains: Acetone		yes
2.3	Other hazards: There is no additional information.	Other hazards	yes
2.3		Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	yes

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### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
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
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation)
IARC	International Agency for Research on Cancer
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
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
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
STEL	Short-term exposure limit

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Abbr.	Descriptions of used abbreviations
STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne contaminants

### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture.  
Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

### Disclaimer

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

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## Carbolic fuchsin solution for microscopy

article number: **A130**

Version: **GHS 2.0 en**

Replaces version of: 2019-08-30

Version: (GHS 1)

date of compilation: 2019-08-30

Revision: 2021-10-26

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

### 1.1 Product identifier

Identification of the substance

**Carbolic fuchsin solution** for microscopy

Article number

A130

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

Relevant identified uses:

Laboratory chemical  
Laboratory and analytical use

Uses advised against:

Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

### 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](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

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

**e-mail (competent person):**

**[sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)**

### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 Westmead, NSW	131126	

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.2	Skin corrosion/irritation	1B	Skin Corr. 1B	H314
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.5	Germ cell mutagenicity	2	Muta. 2	H341

For full text of abbreviations: see SECTION 16

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### The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

## 2.2 Label elements

### Labelling

#### Signal word

**Danger**

#### Pictograms

GHS05, GHS08



#### Hazard statements

H314 Causes severe skin burns and eye damage  
H341 Suspected of causing genetic defects

#### Precautionary statements

##### Precautionary statements - prevention

P260 Do not breathe dusts or mists  
P280 Wear eye protection/face protection

##### Precautionary statements - response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P321 Specific treatment (see on this label)

##### Precautionary statements - disposal

P501 Dispose of contents/container to industrial combustion plant

For professional users only

**Hazardous ingredients for labelling:** Phenol

## 2.3 Other hazards

This material is combustible, but will not ignite readily.

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

not relevant (mixture)

#### 3.2 Mixtures

##### Description of the mixture

Name of sub-stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Ethanol	CAS No 64-17-5	< 10	Flam. Liq. 2 / H225 Eye Irrit. 2A / H319	 	IARC: 1
Phenol	CAS No 108-95-2	< 5	Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 3 / H331 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Muta. 2 / H341 STOT RE 2 / H373	  	
Fuchsine	CAS No 632-99-5	< 1	Carc. 2 / H351		IARC: 2B

##### Notes

IARC: 1: IARC group 1: carcinogenic to humans (International Agency for Research on Cancer)

IARC: 2B: IARC group 2B: possibly carcinogenic to humans (International Agency for Research on Cancer)

For full text of abbreviations: see SECTION 16

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures



##### General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

##### Following inhalation

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

##### Following skin contact

After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

##### Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes hold-  
ing eyelids apart and consult an ophthalmologist. Protect uninjured eye.

##### Following ingestion

Rinse mouth immediately and drink plenty of water. If swallowed danger of perforation of the eso-  
phagus and the stomach (strong corrosive effects). Call a physician immediately.

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

Corrosion, Vomiting, Gastric perforation, Risk of serious damage to eyes

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### 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 spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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

Ingredients of the mixture combustible. The product itself does not burn.

#### Hazardous combustion products

In case of fire and/or explosion do not breathe fumes

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

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

### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

#### Advice on how to contain a spill

Covering of drains.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

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

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Handle and open container with care. Avoid exposure. Clear contaminated areas thoroughly.

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



Keep away from sources of ignition - No smoking.

#### 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

Keep container tightly closed in a cool place.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### 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

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

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m <sup>3</sup> ]	STE L [pp m]	STEL [mg/ m <sup>3</sup> ]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m <sup>3</sup> ]	Nota- tion	Source
AU	phenol	108-95-2	WES	1	4						WES
AU	ethyl alcohol (ethanol)	64-17-5	WES	1,00 0	1,880						WES

##### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

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)

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

#### Relevant DNELs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
Ethanol	64-17-5	DNEL	1,900 mg/ m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - systemic effects

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### Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Ethanol	64-17-5	DNEL	343 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
Ethanol	64-17-5	DNEL	950 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Phenol	108-95-2	DNEL	8 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Phenol	108-95-2	DNEL	16 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
Phenol	108-95-2	DNEL	1.23 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

### Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Ethanol	64-17-5	PNEC	0.79 mg/cm <sup>3</sup>	unknown	marine water	intermittent release
Ethanol	64-17-5	PNEC	2.75 mg/cm <sup>3</sup>	unknown	air	intermittent release
Ethanol	64-17-5	PNEC	3.6 mg/cm <sup>3</sup>	unknown	freshwater sediment	intermittent release
Ethanol	64-17-5	PNEC	580 mg/cm <sup>3</sup>	unknown	sewage treatment plant (STP)	intermittent release
Ethanol	64-17-5	PNEC	0.63 mg/cm <sup>3</sup>	unknown	soil	intermittent release
Ethanol	64-17-5	PNEC	0.96 mg/cm <sup>3</sup>	unknown	freshwater	intermittent release
Phenol	108-95-2	PNEC	0.008 mg/l	aquatic organisms	freshwater	short-term (single instance)
Phenol	108-95-2	PNEC	0.001 mg/l	aquatic organisms	marine water	short-term (single instance)
Phenol	108-95-2	PNEC	2.1 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Phenol	108-95-2	PNEC	0.091 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Phenol	108-95-2	PNEC	0.009 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Phenol	108-95-2	PNEC	0.136 mg/kg	terrestrial organisms	soil	short-term (single instance)

## 8.2 Exposure controls

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### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection. Wear face protection.

#### Skin protection



- **hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. 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 considerable 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**

0,4 mm

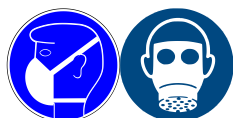
- **breakthrough times of the glove material**

>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: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

#### Environmental exposure controls

Keep away from drains, surface and ground water.

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### SECTION 9: Physical and chemical properties

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

Physical state	liquid
Colour	dark violet
Odour	faintly perceptible
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	>85 °C
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	4 – 5 (20 °C)
Kinematic viscosity	not determined
<u>Solubility(ies)</u>	
Water solubility	miscible in any proportion
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	this information is not available
Vapour pressure	not determined
Density	0.98 g/cm <sup>3</sup> at 20 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)
<u>Other safety parameters</u>	
Oxidising properties	none
<b>9.2 Other information</b>	
Information with regard to physical hazard classes:	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics:	
Miscibility	completely miscible with water

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

#### 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

No known hazardous reactions.

#### 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.

#### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

##### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### Classification acc. to GHS

##### Acute toxicity

Shall not be classified as acutely toxic.

##### Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Phenol	108-95-2	oral	317 mg/kg
Phenol	108-95-2	dermal	630 mg/kg
Phenol	108-95-2	inhalation: dust/mist	0.5 mg/l/4h

##### Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Ethanol	64-17-5	inhalation: vapour	LC50	95.6 mg/l/4h	rat
Ethanol	64-17-5	oral	LD50	7,060 mg/kg	rat
Phenol	108-95-2	oral	LD50	317 mg/kg	rat
Phenol	108-95-2	dermal	LD50	630 mg/kg	rabbit
Fuchsine	632-99-5	oral	LD50	>2,000 mg/kg	monkey

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### **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

### **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**

Suspected of causing genetic defects.

### **Carcinogenicity**

Shall not be classified as carcinogenic.

### **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

### **Specific target organ toxicity - single exposure**

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

### **Specific target organ toxicity - repeated exposure**

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

### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

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

#### **• If swallowed**

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)

#### **• If in eyes**

causes burns, Causes serious eye damage, risk of blindness

#### **• If inhaled**

Irritating to respiratory system

#### **• If on skin**

causes severe burns, causes poorly healing wounds

#### **• Other information**

none

## **11.2 Endocrine disrupting properties**

None of the ingredients are listed.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Harmful to aquatic life.

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### Aquatic toxicity (acute) of components of the mixture

Name of sub-stance	CAS No	Endpoint	Value	Species	Exposure time
Ethanol	64-17-5	LC50	8,140 mg/l	orfe (Leuciscus idus)	96 h
Ethanol	64-17-5	EC50	9,000 – 14,000 mg/l	daphnia magna	48 h
Phenol	108-95-2	LC50	8.9 mg/l	fish	96 h
Phenol	108-95-2	EC50	3.1 mg/l	aquatic invertebrates	48 h
Fuchsine	632-99-5	LC50	6.8 mg/l	fish	24 h

### Aquatic toxicity (chronic) of components of the mixture

Name of sub-stance	CAS No	Endpoint	Value	Species	Exposure time
Phenol	108-95-2	LC50	21.93 mg/l	fish	14 d
Phenol	108-95-2	EC50	10 mg/l	aquatic invertebrates	16 d

### Biodegradation

Data are not available.

## 12.2 Process of degradability

### Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Ethanol	64-17-5	biotic/abiotic	94 %	d		
Phenol	108-95-2	biotic/abiotic	85 %	14 d		
Phenol	108-95-2	carbon dioxide generation	45.5 %	3 d		ECHA
Phenol	108-95-2	oxygen depletion	96 %	20 d		ECHA

## 12.3 Bioaccumulative potential

Data are not available.

### Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Ethanol	64-17-5		-0.31	
Phenol	108-95-2	17.5	1.47 (30 °C)	
Fuchsine	632-99-5		1.632 (pH value: 6.3, 25 °C)	

## 12.4 Mobility in soil

Data are not available.

## 12.5 Results of PBT and vPvB assessment

Data are not available.

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### 12.6 Endocrine disrupting properties

None of the ingredients are listed.

### 12.7 Other adverse effects

Data are not available.

## 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.

#### Waste treatment of containers/packageings

Only packageings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H8** Corrosives

### 13.3 Remarks

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.

## SECTION 14: Transport information

### 14.1 UN number

<b>UN RTDG</b>	UN 1760
IMDG-Code	UN 1760
ICAO-TI	UN 1760

### 14.2 UN proper shipping name

<b>UN RTDG</b>	CORROSIVE LIQUID, N.O.S.
IMDG-Code	CORROSIVE LIQUID, N.O.S.
ICAO-TI	Corrosive liquid, n.o.s.
Technical name (hazardous ingredients)	Ethanol, Phenol

### 14.3 Transport hazard class(es)

<b>UN RTDG</b>	8
IMDG-Code	8
ICAO-TI	8

### 14.4 Packing group

<b>UN RTDG</b>	II
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IMDG-Code	II
ICAO-TI	II
<b>14.5 Environmental hazards</b>	non-environmentally hazardous acc. to the dangerous goods regulations
<b>14.6 Special precautions for user</b>	There is no additional information.
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	The cargo is not intended to be carried in bulk.
<b>14.8 Information for each of the UN Model Regulations</b>	
<b>Transport informationNational regulationsAdditional information(UN RTDG)</b>	
UN number	1760
Class	8
Packing group	II
Danger label(s)	8
	
Special provisions (SP)	274 UN RTDG
Excepted quantities (EQ)	E2 UN RTDG
Limited quantities (LQ)	1 L UN RTDG
<b>International Maritime Dangerous Goods Code (IMDG) - Additional information</b>	
Proper shipping name	CORROSIVE LIQUID, N.O.S.
Particulars in the shipper's declaration	UN1760, CORROSIVE LIQUID, N.O.S., (contains: Ethanol, Phenol), 8, II
Marine pollutant	-
Danger label(s)	8
	
Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	B

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### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name	Corrosive liquid, n.o.s.
Particulars in the shipper's declaration	UN1760, Corrosive liquid, n.o.s., (contains: Ethanol, Phenol), 8, II
Danger label(s)	8
	
Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

## SECTION 15: Regulatory information

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

There is no additional information.

#### National regulations(Australia)

##### Australian Inventory of Chemical Substances(AICS)

All ingredients are listed or exempt from listing.

#### 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	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

#### Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)

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### Legend

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
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

Alignment to regulation: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.1		The most important adverse physicochemical, human health and environmental effects: Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
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
2.2	contains: Phenol		yes
2.3	Other hazards: There is no additional information.	Other hazards: This material is combustible, but will not ignite readily.	yes
2.3		Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	yes

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### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
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
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
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
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
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
Muta.	Germ cell mutagenicity
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Carbolic fuchsin solution for microscopy

article number: **A130**

Abbr.	Descriptions of used abbreviations
ppm	Parts per million
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
TWA	Time-weighted average
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne contaminants

### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture.

Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

### Disclaimer

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