

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

Creation Date 30-Sep-2010 Revision Date 09-Feb-2024 Revision Number 10

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: Bromocresol purple solution 0.04% contains methylated spirit

Cat No. : B/4330L/08

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

Recommended Use Laboratory chemicals. Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company

UK entity/business name

Fisher Scientific UK

Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom

**EU entity/business name** Thermo Fisher Scientific

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

Tel: 01509 231166

Chemtrec US: (800) 424-9300 Chemtrec EU: 001-703-527-3887

## **SECTION 2: HAZARDS IDENTIFICATION**

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

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

**Physical hazards** 

Flammable liquids Category 3 (H226)

**Health hazards** 

Based on available data, the classification criteria are not met

**Environmental hazards** 

FSUB4330L

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Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

#### 2.2. Label elements



#### Signal Word

#### Warning

#### **Hazard Statements**

H226 - Flammable liquid and vapor

EUH066 - Repeated exposure may cause skin dryness or cracking

#### **Precautionary Statements**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

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

#### 2.3. Other hazards

This product does not contain any known or suspected endocrine disruptors

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.2. Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Ethyl alcohol	64-17-5	200-578-6	20 - 25	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)
Acetone	67-64-1	200-662-2	1 - 2.5	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) EUH066
Methyl alcohol	67-56-1	200-659-6	1 - 2.5	Flam. Liq. 2 (H225) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370)
Bromocresol purple	115-40-2	204-087-8	< 0.1	-
Sodium hydroxide	1310-73-2	215-185-5	<0.01	Skin Corr. 1A (H314) Eye Dam. 1 (H318)
Water	7732-18-5	231-791-2	75 - 80	-

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Ethyl alcohol	Eye Irrit. 2 :: C>=50%	-	-
Methyl alcohol	STOT Single Exp. 1 :: >= 10	-	-
	STOT Single Exp. 2 :: 3 - < 10		
Sodium hydroxide	Skin Corr. 1A :: C>=5%	-	-

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Skin Corr. 1B :: 2%<=C<5% Eye Irrit. 2 :: 0.5%<=C<2% Skin Irrit. 2 :: 0.5%<=C<2%	
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Components	Reach Registration Number	
Ethanol	01-2119457610-43	
Acetone	01-2119471330-49	
Methanol	01-2119433307-44	
Sodium hydroxide	01-2119457892-27	

Full text of Hazard Statements: see section 16

## **SECTION 4: FIRST AID MEASURES**

#### 4.1. Description of first aid measures

**General Advice** If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,

call a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if

symptoms occur.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness,

nausea and vomiting

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

Notes to Physician Treat symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

#### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water mist may be used to cool closed containers.

## Extinguishing media which must not be used for safety reasons

No information available.

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

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

## **Hazardous Combustion Products**

Thermal decomposition can lead to release of irritating gases and vapors.

#### 5.3. Advice for firefighters

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As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

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

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

#### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

#### **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

#### **Hygiene Measures**

Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wear suitable gloves and eye/face protection.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area. Keep away from heat, sparks and flame. Keep in properly labeled containers.

Technical Rules for Hazardous Substances (TRGS) 510 Class 3 Storage Class (LGK) (Germany)

#### 7.3. Specific end use(s)

Use in laboratories

#### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

## 8.1. Control parameters

#### **Exposure limits**

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005

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Work Exposure Limits, Fourth edition. Published 2020. **IRE -** 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

Component	The United Kingdom	European Union	Ireland
Ethyl alcohol	TWA: 1000 ppm TWA; 1920		STEL: 1000 ppm 15 min
	mg/m³ TWA		
	WEL - STEL: 3000 ppm		
	STEL; 5760 mg/m <sup>3</sup> STEL		
Acetone	TWA: 500 ppm	TWA: 500 ppm (8h)	TWA: 500 ppm 8 hr.
	TWA: 1210 mg/m <sup>3</sup>	TWA: 1210 mg/m <sup>3</sup> (8h)	TWA: 1210 mg/m <sup>3</sup> 8 hr.
	STEL: 1500 ppm		STEL: 1500 ppm 15 min
	STEL: 3620 mg/m <sup>3</sup>		STEL: 3630 mg/m <sup>3</sup> 15 min
Methyl alcohol	WEL - TWA: 200 ppm TWA;	TWA: 200 ppm 8 hr	TWA: 200 ppm 8 hr.
	266 mg/m <sup>3</sup> TWA	TWA: 260 mg/m <sup>3</sup> 8 hr	TWA: 260 mg/m <sup>3</sup> 8 hr.
	WEL - STEL: 250 ppm	Skin	STEL: 600 ppm 15 min
	STEL; 333 mg/m <sup>3</sup> STEL		STEL: 780 mg/m <sup>3</sup> 15 min
			Skin
Sodium hydroxide	2 mg/m³ STEL		STEL: 2 mg/m <sup>3</sup> 15 min

#### **Biological limit values**

List source(s):

## Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Oral)	Acute effects systemic (Oral)	Chronic effects local (Oral)	Chronic effects systemic (Oral)
Ethyl alcohol 64-17-5 ( 20 - 25 )		DNEL = 87 mg/kg bw/d		

Component	Acute effects local	Acute effects	Chronic effects local	Chronic effects
	(Dermal)	systemic (Dermal)	(Dermal)	systemic (Dermal)
Ethyl alcohol				DNEL = 343mg/kg
64-17-5 ( 20 - 25 )				bw/day
Acetone				DNEL = 186mg/kg
67-64-1 ( 1 - 2.5 )				bw/day
Methyl alcohol		DNEL = 20mg/kg		DNEL = 20mg/kg
67-56-1 (1 - 2.5)		bw/day		bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Ethyl alcohol 64-17-5 ( 20 - 25 )	DNEL = 1900mg/m <sup>3</sup>			DNEL = 950mg/m <sup>3</sup>
Acetone 67-64-1 ( 1 - 2.5 )	DNEL = 2420mg/m <sup>3</sup>			DNEL = 1210mg/m <sup>3</sup>
Methyl alcohol 67-56-1 (1 - 2.5)	DNEL = 130mg/m <sup>3</sup>	DNEL = 130mg/m <sup>3</sup>	DNEL = 130mg/m <sup>3</sup>	DNEL = 130mg/m <sup>3</sup>
Sodium hydroxide 1310-73-2 ( <0.01 )			DNEL = 1mg/m <sup>3</sup>	

#### **Predicted No Effect Concentration (PNEC)**

See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
Acetone	PNEC = 10.6mg/L	PNEC = 30.4mg/kg	PNEC = 21mg/L	PNEC = 100mg/L	PNEC = 29.5 mg/kg
67-64-1 (1 - 2.5)		sediment dw			soil dw
Methyl alcohol	PNEC = 20.8mg/L	PNEC = 77mg/kg	PNEC = 1540mg/L	PNEC = 100mg/L	PNEC = 100mg/kg
67-56-1 (1 - 2.5)		sediment dw			soil dw

Component	Marine water	Marine water	Marine water	Food chain	Air
		sediment	intermittent		

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Acetone PNEC = 1.06mg/L PNEC = 3.04mg/kg sediment dw

Methyl alcohol 67-56-1 (1 - 2.5) PNEC = 2.08mg/L PNEC = 7.7mg/kg sediment dw

#### 8.2. Exposure controls

#### **Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

**Eye Protection** Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection Protective gloves

Nitrile rubber recommendations Neoprene PVC	
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Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure. Impervious

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clothing. Chemical resistant apron. Boots. Impervious gloves.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced **Recommended Filter type:** Particulates filter conforming to EN 143

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure

limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water

system.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

Physical State Liquid

AppearanceBlue - VioletOdorAlcohol-likeOdor ThresholdNo data availableMelting Point/RangeNo data availableSoftening PointNo data available

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Boiling Point/Range 63.9 °C / 147 °F

Flammability (liquid) Flammable On basis of test data

Flammability (solid,gas) Not applicable Liquid

Explosion Limits No data available

Flash Point 32 °C / 89.6 °F Method - No information available

Autoignition Temperature No information available

**Decomposition Temperature** No data available

pH

Viscosity No data available

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Componentlog PowEthyl alcohol-0.32Acetone-0.24Methyl alcohol-0.74

Vapor Pressure No data available

**Density / Specific Gravity** 0.95

Bulk DensityNot applicableLiquidVapor DensityNo data available(Air = 1.0)

Particle characteristics Not applicable (liquid)

9.2. Other information

**Explosive Properties** explosive air/vapour mixtures possible

### **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

10.4. Conditions to avoid

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and

sources of ignition. Exposure to air or moisture over prolonged periods.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### **Product Information**

(a) acute toxicity;

Oral Based on available data, the classification criteria are not met
Dermal Based on available data, the classification criteria are not met

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Inhalation

Based on available data, the classification criteria are not met

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	LD50 = 10470 mg/kg	-	LC50 = 117-125 mg/l (4h)
	OECD 401 (Rat)		OECD 403 (rat)
	3450 mg/kg ( Mouse )		20000 ppm/10H (rat)
Acetone	5800 mg/kg (Rat)	> 15800 mg/kg (rabbit)	76 mg/l, 4 h, (rat)
		> 7400 mg/kg (rat)	
Methyl alcohol	LD50 = 1187 – 2769 mg/kg (Rat)	LD50 = 17100 mg/kg ( Rabbit )	LC50 = 128.2 mg/L (Rat) 4 h
Sodium hydroxide	LD50 = 325 mg/kg (Rat)	LD50 = 1350 mg/kg (Rabbit)	-
·			
Water	-	•	-

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

**Respiratory**Skin
No data available
No data available

Component	Test method	Test species	Study result
Ethyl alcohol	Mouse Ear Swelling Test (MEST)	mouse	non-sensitising
64-17-5 ( 20 - 25 )			
		mouse	non-sensitising
	OECD Test Guideline 429		
	Local Lymph Node Assay		
Acetone	Guinea Pig Maximisation Test	guinea pig	non-sensitising
67-64-1 ( 1 - 2.5 )	(GPMT)		
Methyl alcohol	OECD Test Guideline 406	guinea pig	non-sensitising
67-56-1 (1 - 2.5)	Guinea Pig Maximisation Test		_
	(GPMT)		

(e) germ cell mutagenicity; No data available

Component	Test method	Test species	Study result
Ethyl alcohol	AMES test	in vitro	negative
64-17-5 ( 20 - 25 )	OECD Test Guideline 471	Bacteria	
	Gene cell mutation		
	OECD Test Guideline 476	in vitro	negative
		Mammalian	· ·
Acetone	OECD Test Guideline 471	in vivo	negative
67-64-1 ( 1 - 2.5 )	AMES test		
	OECD Test Guideline 476	in vitro	negative
	Mammalian		
	Gene cell mutation		

(f) carcinogenicity; No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

(g) reproductive toxicity; No data available

(g) represents textory,	TTO data available		
Component	Test method	Test species / Duration	Study result
Ethyl alcohol 64-17-5 ( 20 - 25 )	OECD Test Guideline 416	Oral / mouse 2 Generation	NOAEL = 13.8 g/kg/day
	OECD Test Guideline 414		
		Inhalation / Rat	NOAEC =
			16000 ppm
Methyl alcohol	OECD Test Guideline 416	Rat / Inhalation	NOAEC =
67-56-1 ( 1 - 2.5 )		2 Generation	1.3 mg/l (air)

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(h) STOT-single exposure; No data available

Results / Target organs Central nervous system (CNS).

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects,both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

delayed

11.2. Information on other hazards

known or suspected endocrine disruptors.

## **SECTION 12: ECOLOGICAL INFORMATION**

12.1. Toxicity
Ecotoxicity effects

Contains a substance which is:. Toxic to aquatic organisms. The product contains following

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substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Ethyl alcohol	Fathead minnow (Pimephales promelas) LC50 = 14200 mg/l/96h	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h	EC50 (72h) = 275 mg/l (Chlorella vulgaris)
Acetone	Oncorhynchus mykiss: LC50 = 5540 mg/l 96h Alburnus alburnus: LC50 = 11000 mg/l 96h Leuciscus idus: LC50 = 11300 mg/L/48h Salmo gairdneri: LC50 = 6100 mg/L/24h	EC50 = 8800 mg/L/48h EC50 = 12700 mg/L/48h EC50 = 12600 mg/L/48h	NOEC = 430 mg/l (algae; 96 h)
Methyl alcohol	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 > 10000 mg/L 24h	
Sodium hydroxide	LC50: = 45.4 mg/L, 96h static (Oncorhynchus mykiss)	<u>-</u>	<u>-</u>

Component	Microtox	M-Factor
Ethyl alcohol	Photobacterium phosphoreum:EC50 = 34634	
	mg/L/30 min	
	Photobacterium phosphoreum:EC50 = 35470	
	mg/L/5 min	
Acetone	EC50 = 14500 mg/L/15 min	
Methyl alcohol	EC50 = 39000 mg/L 25 min	
	EC50 = 40000 mg/L 15 min	
	EC50 = 43000 mg/L 5 min	
Sodium hydroxide	-	

## 12.2. Persistence and degradability

Persistence Persistence is unlikely, based on information available

reisistence	reisistence is difficely, based on information available.			
	Component	Degradability		
	Ethyl alcohol 64-17-5 ( 20 - 25 )	OECD 301E = 94%		
	Acetone	91 % (28 d) (OECD 301 B)		

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67-64-1 ( 1 - 2.5 )	
Methyl alcohol	DT50 ~ 17.2d
67-56-1 (1 - 2.5)	>94% after 20d

Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Ethyl alcohol	-0.32	No data available
Acetone	-0.24	0.69 dimensionless
Methyl alcohol	-0.74	<10 dimensionless

12.4. Mobility in soil

The product contains volatile organic compounds (VOC) which will evaporate easily from all

surfaces Will likely be mobile in the environment due to its volatility. Disperses rapidly in

air

12.5. Results of PBT and vPvB

assessment

No data available for assessment.

12.6. Endocrine disrupting

properties

**Endocrine Disruptor Information** 

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant Ozone Depletion Potential This product does not contain any known or suspected substance This product does not contain any known or suspected substance

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

## 13.1. Waste treatment methods

Waste from Residues/Unused

**Products** 

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging** 

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

**European Waste Catalogue (EWC)** 

According to the European Waste Catalog, Waste Codes are not product specific, but

application specific.

Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations.

## **SECTION 14: TRANSPORT INFORMATION**

#### IMDG/IMO

**14.1. UN number** UN1993

**14.2. UN proper shipping name Technical Shipping Name**Flammable liquid, n.o.s.
Contains Ethanol, Acetone

14.3. Transport hazard class(es) 3 14.4. Packing group III

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ADR

**14.1. UN number** UN1993

14.2. UN proper shipping nameFlammable liquid, n.o.s.Technical Shipping NameContains Ethanol, Acetone

14.3. Transport hazard class(es) 3 14.4. Packing group III

**IATA** 

**14.1. UN number** UN1993

14.2. UN proper shipping nameFlammable liquid, n.o.s.Technical Shipping NameContains Ethanol, Acetone

14.3. Transport hazard class(es) 3 14.4. Packing group III

14.5. Environmental hazards No hazards identified

**14.6. Special precautions for user** No special precautions required.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

#### **SECTION 15: REGULATORY INFORMATION**

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

## **International Inventories**

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Ethyl alcohol	64-17-5	200-578-6	-	-	Х	Х	KE-13217	X	X
Acetone	67-64-1	200-662-2	-	-	Х	X	KE-29367	X	Х
Methyl alcohol	67-56-1	200-659-6	-	-	Х	Х	KE-23193	X	Х
Bromocresol purple	115-40-2	204-087-8	-	-	Х	X	-	Χ	Х
Sodium hydroxide	1310-73-2	215-185-5	-	-	Х	Х	KE-31487	X	Х
Water	7732-18-5	231-791-2	-	-	Х	Х	KE-35400	Χ	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Ethyl alcohol	64-17-5	Х	ACTIVE	Х	-	Х	Х	Х
Acetone	67-64-1	X	ACTIVE	Х	-	Х	Х	Х
Methyl alcohol	67-56-1	X	ACTIVE	X	-	Х	Х	X
Bromocresol purple	115-40-2	Х	ACTIVE	Х	-	Х	Х	Х
Sodium hydroxide	1310-73-2	X	ACTIVE	Х	-	Х	Х	Х
Water	7732-18-5	Х	ACTIVE	Х	-	Х	Х	Х

**Legend:** X - Listed '-' - Not Listed **KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

#### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization		REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Ethyl alcohol	64-17-5	-	-	-
Acetone	67-64-1	-	Use restricted. See item	-
			75.	
			(see link for restriction	
			details)	

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Methyl alcohol	67-56-1	- Use restricted. See item 69. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)
Bromocresol purple	115-40-2	
Sodium hydroxide	1310-73-2	- Use restricted. See item 75. (see link for restriction details)
Water	7732-18-5	

#### **REACH links**

https://echa.europa.eu/substances-restricted-under-reach

#### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Ethyl alcohol	64-17-5	Not applicable	Not applicable
Acetone	67-64-1	Not applicable	Not applicable
Methyl alcohol	67-56-1	500 tonne	5000 tonne
Bromocresol purple	115-40-2	Not applicable	Not applicable
Sodium hydroxide	1310-73-2	Not applicable	Not applicable
Water	7732-18-5	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

## **National Regulations**

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

## WGK Classification

Water endangering class = 1 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Ethyl alcohol	WGK1	
Acetone	WGK1	
Methyl alcohol	WGK 2	Class I: 20 mg/m³ (Massenkonzentration)
Sodium hydroxide	WGK1	

Component	France - INRS (Tables of occupational diseases)		
Ethyl alcohol	Tableaux des maladies professionnelles (TMP) - RG 84		
Acetone	Tableaux des maladies professionnelles (TMP) - RG 84		
Methyl alcohol	Tableaux des maladies professionnelles (TMP) - RG 84		

#### Bromocresol purple solution 0.04% contains methylated spirit

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Ethyl alcohol 64-17-5 ( 20 - 25 )		Group I	
Acetone 67-64-1 ( 1 - 2.5 )		Group I	
Methyl alcohol 67-56-1 ( 1 - 2.5 )	Prohibited and Restricted Substances	Group I	
Bromocresol purple 115-40-2 ( < 0.1 )	Prohibited and Restricted Substances		
Sodium hydroxide 1310-73-2 ( <0.01 )	Prohibited and Restricted Substances		

#### 15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

#### **SECTION 16: OTHER INFORMATION**

#### Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor

H301 - Toxic 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

H336 - May cause drowsiness or dizziness

H372 - Causes damage to organs through prolonged or repeated exposure

EUH066 - Repeated exposure may cause skin dryness or cracking

#### Legend

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

**ENCS** - Japanese Existing and New Chemical Substances

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EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

Substances List

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water

WEL - Workplace Exposure Limit **ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data **Health Hazards** Calculation method **Environmental hazards** Calculation method

TWA - Time Weighted Average

**AICS** - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association** 

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate VOC - (Volatile Organic Compound)

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Bromocresol purple solution 0.04% contains methylated spirit

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

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 30-Sep-2010

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 09-Feb-2024

**Revision Summary** SDS sections updated, 3, 8, 11, 12, 15, 16.

# This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

## **End of Safety Data Sheet**