



SAFETY DATA SHEET

Neutron[®]Pharmaceutical Co.
Manufacturer of Laboratory Chemical & Pharmaceutical Materials

Creation Date Oct-2013

Revision Date Oct-2018

Revision Number 2

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

1.1. Product identification

Product Description: Bromocresol purple, solution
Cat No. : 1.3780

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 **NEUTRON PHARMACHEMICAL CO**
98, 9th Floor, Borjsaz Building, Azadi Ave, Tehran,
Iran.T 021-66906732-3 -F 021-66581408
E-mail address info@neutronco.com www.neutronco.com

1.4. Emergency telephone number

125

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Flammable liquids

Category 3

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

2.2. Label elements



Signal Word

Warning

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Hazard Statements

H226 - Flammable liquid and vapor

Precautionary Statements

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P264 - Wash face, hands and any exposed skin thoroughly after handling

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Acetone	67-64-1	EEC No. 200-662-2	2	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) EUH066
Bromocresol purple	115-40-2	EEC No. 204-087-8	0.04	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)
Sodium hydroxide	1310-73-2	215-185-5	0-0.01	Skin Corr. 1A (H314) Eye Dam. 1 (H318)
Water	7732-18-5	231-791-2	70-75	-
Ethyl alcohol	64-17-5	EEC No. 200-578-6	22	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Ingestion

Do not induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Inhalation

Move to fresh air. If not breathing, give artificial respiration. Get medical attention immediately if symptoms occur.

Protection of First-aiders

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

Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness,

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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

Cool closed containers exposed to fire with water spray.

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

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. Remove all sources of ignition. Take precautionary measures against static discharges. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

6.3. Methods and material for containment and cleaning up

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

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. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharges. Do not taste or swallow. Do not get in eyes, on skin, or on clothing.

7.2. Conditions for safe storage, including any incompatibilities

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

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 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component	European Union	The United Kingdom	France	Belgium	Spain
Acetone	TWA: 500 ppm 8 hr TWA: 1210 mg/m ³ 8 hr	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1500 ppm STEL: 3620 mg/m ³	TWA / VME: 500 ppm (8 heures). restrictive limit TWA / VME: 1210 mg/m ³ (8 heures). restrictive limit STEL / VLCT: 1000 ppm. restrictive limit STEL / VLCT: 2420 mg/m ³ . restrictive limit	TWA: 500 ppm 8 uren TWA: 1210 mg/m ³ 8 uren STEL: 1000 ppm 15 minuten STEL: 2420 mg/m ³ 15 minuten	TWA / VLA-ED: 500 ppm (8 horas) TWA / VLA-ED: 1210 mg/m ³ (8 horas)
Sodium hydroxide		2 mg/m ³ STEL	TWA / VME: 2 mg/m ³ (8 heures).	2 mg/m ³ VLE	STEL / VLA-EC: 2 mg/m ³ (15 minutos).
Ethyl alcohol		TWA: 1000 ppm TWA; 1920 mg/m ³ TWA WEL - STEL: 3000 ppm STEL; 5760 mg/m ³ STEL	TWA / VME: 1000 ppm (8 heures). TWA / VME: 1900 mg/m ³ (8 heures). STEL / VLCT: 5000 ppm. STEL / VLCT: 9500 mg/m ³ .	TWA: 1000 ppm 8 uren TWA: 1907 mg/m ³ 8 uren	STEL / VLA-EC: 1000 ppm (15 minutos). STEL / VLA-EC: 1910 mg/m ³ (15 minutos).

Component	Italy	Germany	Portugal	The Netherlands	Finland
Acetone	TWA: 500 ppm 8 ore. Media Ponderata nel Tempo TWA: 1210 mg/m ³ 8 ore. Media Ponderata nel Tempo	TWA: 500 ppm TWA: 1200 mg/m ³	STEL: 750 ppm 15 minutos TWA: 500 ppm 8 horas TWA: 1210 mg/m ³ 8 horas	STEL: 2420 mg/m ³ 15 minuten TWA: 1210 mg/m ³ 8 uren	TWA: 500 ppm 8 tunteina TWA: 1200 mg/m ³ 8 tunteina STEL: 630 ppm 15 minuutteina STEL: 1500 mg/m ³ 15 minuutteina
Sodium hydroxide		2 mg/m ³ TWA (inhalable fraction)	Ceiling: 2 mg/m ³		STEL: 2 mg/m ³ 15 minuutteina Ceiling: 2 mg/m ³
Ethyl alcohol		500 ppm TWA; 960 mg/m ³ TWA	TWA: 1000 ppm 8 horas	huid STEL: 1900 mg/m ³ 15 minuten TWA: 260 mg/m ³ 8 uren	TWA: 1000 ppm 8 tunteina TWA: 1900 mg/m ³ 8 tunteina STEL: 1300 ppm 15 minuutteina STEL: 2500 mg/m ³ 15 minuutteina

Component	Austria	Denmark	Switzerland	Poland	Norway
Acetone	MAK-KZW: 2000 ppm 15 Minuten MAK-KZW: 4800 mg/m ³ 15 Minuten	TWA: 250 ppm 8 timer TWA: 600 mg/m ³ 8 timer	STEL: 1000 ppm 15 Minuten STEL: 2400 mg/m ³ 15 Minuten	STEL: 1800 mg/m ³ 15 minutach TWA: 600 mg/m ³ 8 godzinach	TWA: 125 ppm 8 timer TWA: 295 mg/m ³ 8 timer STEL: 125 ppm 15 minutter.

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	MAK-TMW: 500 ppm 8 Stunden MAK-TMW: 1200 mg/m ³ 8 Stunden		TWA: 500 ppm 8 Stunden TWA: 1200 mg/m ³ 8 Stunden		STEL: 295 mg/m ³ 15 minutter.
Sodium hydroxide	MAK-KZW: 4 mg/m ³ 15 Minuten MAK-TMW: 2 mg/m ³ 8 Stunden	Ceiling: 2 mg/m ³	STEL: 2 mg/m ³ 15 Minuten TWA: 2 mg/m ³ 8 Stunden	STEL: 1 mg/m ³ 15 minutach TWA: 0.5 mg/m ³ 8 godzinach	Ceiling: 2 mg/m ³
Ethyl alcohol	MAK-KZW: 2000 ppm 15 Minuten MAK-KZW: 3800 mg/m ³ 15 Minuten MAK-TMW: 1000 ppm 8 Stunden MAK-TMW: 1900 mg/m ³ 8 Stunden	TWA: 1000 ppm 8 timer TWA: 1900 mg/m ³ 8 timer	STEL: 1000 ppm 15 Minuten STEL: 1920 mg/m ³ 15 Minuten TWA: 500 ppm 8 Stunden TWA: 960 mg/m ³ 8 Stunden	TWA: 1900 mg/m ³ 8 godzinach	TWA: 500 ppm 8 timer TWA: 950 mg/m ³ 8 timer STEL: 500 ppm 15 minutter. STEL: 950 mg/m ³ 15 minutter.

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Acetone	TWA: 600 mg/m ³ STEL : 1400 mg/m ³	TWA-GVI: 500 ppm 8 satima. TWA-GVI: 1210 mg/m ³ 8 satima. STEL-KGVI: 1500 ppm 15 minutama. STEL-KGVI: 3620 mg/m ³ 15 minutama.	TWA: 500 ppm 8 hr. TWA: 1210 mg/m ³ 8 hr.	Skin-potential for cutaneous absorption TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 800 mg/m ³ 8 hodinách. Ceiling: 1500 mg/m ³
Sodium hydroxide	TWA: 2.0 mg/m ³	STEL-KGVI: 2 mg/m ³ 15 minutama.	STEL: 2 mg/m ³ 15 min		TWA: 1 mg/m ³ 8 hodinách. Ceiling: 2 mg/m ³
Ethyl alcohol	TWA: 1000 mg/m ³	TWA-GVI: 1000 ppm 8 satima. TWA-GVI: 1900 mg/m ³ 8 satima.	STEL: 1000 ppm 15 min		TWA: 1000 mg/m ³ 8 hodinách. Ceiling: 3000 mg/m ³

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Acetone	TWA: 500 ppm 8 tundides. TWA: 1210 mg/m ³ 8 tundides.	TWA: 500 ppm 8 hr TWA: 1210 mg/m ³ 8 hr	STEL: 3560 mg/m ³ TWA: 1780 mg/m ³	STEL: 2420 mg/m ³ 15 percekben. CK Substances with European indicative limits (96/94/EC, 2000/39/EC, 2006/15/EC, 2009/161/EU), which currently has no peak limit concentration. In these cases, Annex 3.1. should be used exercised TWA: 1210 mg/m ³ 8 órában. AK	TWA: 250 ppm 8 klukkustundum. TWA: 600 mg/m ³ 8 klukkustundum. Ceiling: 500 ppm Ceiling: 1200 mg/m ³
Sodium hydroxide	TWA: 1 mg/m ³ 8 tundides. Ceiling: 2 mg/m ³		STEL: 2 mg/m ³ TWA: 2 mg/m ³	STEL: 2 mg/m ³ 15 percekben. CK TWA: 2 mg/m ³ 8 órában. AK	STEL: 2 mg/m ³
Ethyl alcohol	TWA: 500 ppm 8 tundides. TWA: 1000 mg/m ³ 8 tundides. STEL: 1000 ppm 15 minutites. STEL: 1900 mg/m ³ 15 minutites.		TWA: 1000 ppm TWA: 1900 mg/m ³	STEL: 7600 mg/m ³ 15 percekben. CK TWA: 1900 mg/m ³ 8 órában. AK	TWA: 1000 ppm 8 klukkustundum. TWA: 1900 mg/m ³ 8 klukkustundum. Ceiling: 2000 ppm Ceiling: 3800 mg/m ³

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Acetone	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm IPRD TWA: 1210 mg/m ³ IPRD STEL: 1000 ppm	TWA: 500 ppm 8 Stunden TWA: 1210 mg/m ³ 8 Stunden	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm 8 ore TWA: 1210 mg/m ³ 8 ore

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		STEL: 2420 mg/m ³			
Sodium hydroxide	TWA: 0.5 mg/m ³	Ceiling: 2 mg/m ³			
Ethyl alcohol	TWA: 1000 mg/m ³	TWA: 500 ppm IPRD TWA: 1000 mg/m ³ IPRD STEL: 1000 ppm STEL: 1900 mg/m ³			TWA: 1000 ppm 8 ore TWA: 1900 mg/m ³ 8 ore STEL: 5000 ppm 15 minute STEL: 9500 mg/m ³ 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Acetone	TWA: 200 mg/m ³ STEL: 800 mg/m ³ vapor	Ceiling: 2420 mg/m ³ TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm 8 urah TWA: 1210 mg/m ³ 8 urah	STV: 500 ppm 15 minuter STV: 1200 mg/m ³ 15 minuter LLV: 250 ppm 8 timmar. LLV: 600 mg/m ³ 8 timmar.	TWA: 500 ppm 8 saat TWA: 1210 mg/m ³ 8 saat
Sodium hydroxide		TWA: 2 mg/m ³	TWA: 2 mg/m ³ 8 urah inhalable fraction STEL: 2 mg/m ³ 15 minutah inhalable fraction	LLV: 1 mg/m ³ 8 timmar. inhalable dust CLV: 2 mg/m ³	
Ethyl alcohol	TWA: 1000 mg/m ³ STEL: 2000 mg/m ³ vapor	Ceiling: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³	TWA: 1000 ppm 8 urah TWA: 1900 mg/m ³ 8 urah STEL: 4000 ppm 15 minutah STEL: 7600 mg/m ³ 15 minutah	STV: 1000 ppm 15 minuter STV: 1900 mg/m ³ 15 minuter LLV: 500 ppm 8 timmar. LLV: 1000 mg/m ³ 8 timmar.	

Biological limit values

List source(s):

Component	European Union	United Kingdom	France	Spain	Germany
Acetone			Acetone: 100 mg/L urine end of shift	Acetone: 50 mg/L urine end of shift	Acetone: 80 mg/L urine (end of shift)

Component	Italy	Finland	Denmark	Bulgaria	Romania
Acetone				Acetone: 80 mg/L urine at the end of exposure or end of shift	Acetone: 50 mg/L urine end of shift

Component	Gibraltar	Latvia	Slovak Republic	Luxembourg	Turkey
Acetone			Acetone: 80 mg/L urine end of exposure or work shift		

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) No information available

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral Dermal Inhalation				

Predicted No Effect Concentration (PNEC) No information available.

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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

Safety glasses with side-shields (European standard - EN 166)

Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber Nitrile rubber Neoprene PVC	See manufacturers recommendations	-	EN 374	(minimum requirement)

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure impervious 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 compatibility, 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

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 and clothing. For environmental protection remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection.

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

Appearance

Blue - Violet

Physical State

Liquid

Odor

Alcohol-like

Odor Threshold

No data available

pH

7

Melting Point/Range

No data available

Softening Point

No data available

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Boiling Point/Range	63.9 °C / 147 °F	
Flash Point	32 °C / 89.6 °F	Method - No information available
Evaporation Rate	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	(Air = 1.0)
Specific Gravity / Density	0.95	
Bulk Density	Not applicable	Liquid
Water Solubility	Miscible	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Acetone	-0.24	
Ethyl alcohol	-0.32	
Autoignition Temperature	No information available	
Decomposition Temperature	No data available	
Viscosity	No data available	
Explosive Properties	No information available	explosive air/vapour mixtures possible
Oxidizing Properties	No information available	

9.2. Other information

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 toxicological effects

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

Inhalation

Based on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetone	5800 mg/kg (Rat)	> 15800 mg/kg (rabbit)	76 mg/l, 4 h, (rat)

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		> 7400 mg/kg (rat)	
Sodium hydroxide		LD50 = 1350 mg/kg (Rabbit)	
Water	-		
Ethyl alcohol	3450 mg/kg (Mouse)		20000 ppm/10H (Rat)

(b) skin corrosion/irritation; No data available

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

(d) respiratory or skin sensitization;

Respiratory No data available

Skin No data available

(e) germ cell mutagenicity; No data available

Component	Test method	Test species	Study result
Acetone 67-64-1 (2)	OECD Test Guideline 471 AMES test	in vivo	negative
	OECD Test Guideline 476 Mammalian Gene cell mutation	in vitro	negative

(f) carcinogenicity; No data available

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

Component	EU	UK	Germany	IARC
Ethyl alcohol				Group 1

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

(j) aspiration hazard; No data available

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

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

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

No information available. Contains a substance which is: Toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
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)	EC50 = 14500 mg/L/15 min
Sodium hydroxide	LC50: = 45.4 mg/L, 96h	-	-	-

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static (Oncorhynchus mykiss)				
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)	Photobacterium phosphoreum:EC50 = 34634 mg/L/30 min Photobacterium phosphoreum:EC50 = 35470 mg/L/5 min

12.2. Persistence and degradability

Persistence Persistence is unlikely, based on information available.

Component	Degradability
Acetone 67-64-1 (2)	91 % (28 d) (OECD 301 B)

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)
Acetone	-0.24	0.69
Ethyl alcohol	-0.32	No data available

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. Other adverse effects

Endocrine Disruptor Information
Persistent Organic Pollutant
Ozone Depletion Potential

This product does not contain any known or suspected endocrine disruptors
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 Catalogue, Waste Codes are not product specific, but application specific.

Other Information

Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be incinerated, when in compliance with local regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number

UN1993

14.2. UN proper shipping name

Flammable liquid, n.o.s

14.3. Transport hazard class(es)

3

14.4. Packing group

III

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14.1. UN number	UN1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S
14.3. Transport hazard class(es)	3
14.4. Packing group	III

IATA

14.1. UN number	UN1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S
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. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Acetone	200-662-2	-		X	X	-	X	X	X	X	X
Bromocresol purple	204-087-8	-		X	X	-	X	X	X	X	-
Sodium hydroxide	215-185-5	-		X	X	-	X	X	X	X	X
Water	231-791-2	-		X	X	-	X	-	X	X	X
Ethyl alcohol	200-578-6	-		X	X	-	X	X	X	X	X

National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Acetone	WGK 1	
Sodium hydroxide	WGK 1	
Ethyl alcohol	WGK 1	

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

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

Take note of Dir 94/33/EC on the protection of young people at work

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

15.2. Chemical safety assessment

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

SECTION 16: OTHER INFORMATION

Full Text of H-/EUH-Statements Referred to Under Section 3

H225 - Highly flammable liquid and vapor

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

EUH066 - Repeated exposure may cause skin dryness or cracking

H315 - Causes skin irritation

SAFETY DATA SHEET

Bromocresol purple, solution 0.04%

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H319 - Causes serious eye irritation H335 -
May cause respiratory irritation H336 - May
cause drowsiness or dizziness

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical
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

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

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

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic
Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

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

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 Compounds

Key literature references and sources for data

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

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.

Creation Date Oct-2013

Next Revision Date Oct-2023

Revision Summary SDS section 1 updated and update of Format.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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