

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Product name : Universal Indicator, Bogens in Alcohol
Product code : LC26500

1.2. Recommended use and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only.
Recommended use : Laboratory chemicals
Restrictions on use : Not for food, drug or household use

1.3. Supplier

LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or +1-703-741-5970

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 2	H225	Highly flammable liquid and vapour
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Specific target organ toxicity (single exposure) Category 3	H336	May cause drowsiness or dizziness

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02

GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) : P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing mist, spray, vapors.
P264 - Wash exposed skin thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2) to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P235 - Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Isopropyl Alcohol (2-Propanol)	(CAS-No.) 67-63-0	70	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H335
Water	(CAS-No.) 7732-18-5	29.74	Not classified
Bromothymol Blue, Free Acid	(CAS-No.) 76-59-5	0.08	Not classified
Thymol Blue, Free Acid	(CAS-No.) 76-61-9	0.07	Not classified
Methyl Orange, Sodium Salt, ACS	(CAS-No.) 547-58-0	0.05	Acute Tox. 3 (Oral), H301
Methyl Red, Free Acid	(CAS-No.) 493-52-7	0.04	Muta. 2, H341
Phenolphthalein, ACS	(CAS-No.) 77-09-8	0.02	Carc. 2, H351

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: gastric lavage.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Dry/sore throat. Central nervous system depression. Dizziness. Headache. Narcosis.

Symptoms/effects after skin contact : Dry skin.

Symptoms/effects after eye contact : Irritation of the eye tissue.

Symptoms/effects after ingestion : AFTER ABSORPTION OF LARGE QUANTITIES: Central nervous system depression. Headache. Dilation of the blood vessels. Low arterial pressure. Nausea. Vomiting. Abdominal pain. Disturbed motor response. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Body temperature fall. Slowing respiration.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Itching. Cracking of the skin. Skin rash/inflammation. Impaired memory.

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4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. Alcohol-resistant foam. BC powder. Carbon dioxide.
Unsuitable extinguishing media : Solid water jet ineffective as extinguishing medium.

5.2. Specific hazards arising from the chemical

Fire hazard : DIRECT FIRE HAZARD. Highly flammable. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard.
Explosion hazard : DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".
Reactivity : Upon combustion: CO and CO₂ are formed. Violent to explosive reaction with (strong) oxidizers. Prolonged storage/in large quantities: may form peroxides.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.
Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.
Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosion-proof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.
Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: dry sand/earth/vermiculite or powdered limestone. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Incompatible products : Strong oxidizers. silver nitrate. Sodium hypochlorite.
- Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
- Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. strong acids. (strong) bases. amines. halogens.
- Storage area : Store in a cool area. Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. May be stored under nitrogen. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. with pressure relief valve. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: stainless steel. monel steel. carbon steel. copper. nickel. bronze. glass. Teflon. polyethylene. polypropylene. zinc. MATERIAL TO AVOID: steel with rubber inner lining. aluminium.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isopropyl Alcohol (2-Propanol) (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	400 ppm
IDLH	US IDLH (ppm)	2000 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	980 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	1225 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
Water (7732-18-5)		
Not applicable		
Thymol Blue, Free Acid (76-61-9)		
Not applicable		
Methyl Orange, Sodium Salt, ACS (547-58-0)		
Not applicable		
Phenolphthalein, ACS (77-09-8)		
Not applicable		
Methyl Red, Free Acid (493-52-7)		
Not applicable		
Bromothymol Blue, Free Acid (76-59-5)		
Not applicable		

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8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses.



Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: butyl rubber. nitrile rubber. viton. polyethylene/ethylenevinylalcohol. GIVE GOOD RESISTANCE: neoprene. GIVE LESS RESISTANCE: PVC. neoprene/natural rubber. GIVE POOR RESISTANCE: natural rubber. polyethylene. PVA

Hand protection:

Gloves

Eye protection:

Safety glasses

Skin and body protection:

Protective clothing

Respiratory protection:

Wear gas mask with filter type A if conc. in air
> exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Dark Green
Odor	: Alcohol odour Stuffy odour Mild odour
Odor threshold	: 3 - 610 ppm 8 - 1499 mg/m ³
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: 2.3
Relative evaporation rate (ether=1)	: 21
Flammability (solid, gas)	: No data available
Vapor pressure	: 44 hPa
Vapor pressure at 50 °C	: 229 hPa
Relative vapor density at 20 °C	: 2.1
Relative density	: No data available
Relative density of saturated gas/air mixture	: 1.05
Molecular mass	: 60.1 g/mol
Solubility	: Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in oils/fats. Soluble in chloroform. Ethanol: Complete Ether: Complete Acetone: soluble

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Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: 2 - 13 vol % 50 - 335 g/m ³ LEL: 2 vol % UEL: 13 vol %
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Minimum ignition energy	: 0.65 mJ
Specific conductivity	: 5.8 µS/m
Saturation concentration	: 106 g/m ³
VOC content	: 100 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

Upon combustion: CO and CO₂ are formed. Violent to explosive reaction with (strong) oxidizers. Prolonged storage/in large quantities: may form peroxides.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Heat. High temperature. Incompatible materials. Open flame. Sparks.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Sulfur compounds. Hydrogen bromide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure	: Inhalation; Skin and eye contact
Acute toxicity	: Not classified

Universal Indicator, Bogens in Alcohol	
LD50 oral rat	5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value)
LC50 inhalation rat (ppm)	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male/female, Experimental value)
ATE US (oral)	5045 mg/kg body weight
ATE US (dermal)	12870 mg/kg body weight
ATE US (vapors)	73 mg/l/4h
Isopropyl Alcohol (2-Propanol) (67-63-0)	
LD50 oral rat	5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value)
LD50 dermal rabbit	16400 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value)
LC50 inhalation rat (ppm)	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male/female, Experimental value)
ATE US (oral)	5045 mg/kg body weight
ATE US (dermal)	12870 mg/kg body weight
ATE US (vapors)	73 mg/l/4h
ATE US (dust, mist)	73 mg/l/4h

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Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000 mg/kg body weight

Methyl Orange, Sodium Salt, ACS (547-58-0)	
LD50 oral rat	60 mg/kg (Rat)
ATE US (oral)	60 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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IARC group	3 - Not classifiable

Methyl Red, Free Acid (493-52-7)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure	: Not classified
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Aspiration hazard	: Not classified
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Potential Adverse human health effects and symptoms	: Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Non-toxic in contact with skin (LD50 skin > 5000 mg/kg). Not irritant to skin. May cause drowsiness or dizziness. Practically non-toxic by inhalation (LC50 inh, rat > 20 mg/l/4h). Causes serious eye irritation.
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Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Dry/sore throat. Central nervous system depression. Dizziness. Headache. Narcosis.
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Symptoms/effects after skin contact	: Dry skin.
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Symptoms/effects after eye contact	: Irritation of the eye tissue.
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Symptoms/effects after ingestion	: AFTER ABSORPTION OF LARGE QUANTITIES: Central nervous system depression. Headache. Dilation of the blood vessels. Low arterial pressure. Nausea. Vomiting. Abdominal pain. Disturbed motor response. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Body temperature fall. Slowing respiration.
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Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Itching. Cracking of the skin. Skin rash/inflammation. Impaired memory.
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Classification concerning the environment: not applicable.
Ecology - air	: TA-Luft Klasse 5.2.5.
Ecology - water	: Not harmful to crustacea. Not harmful to fishes. Groundwater pollutant. No inhibition of activated sludge. Not harmful to algae. Not harmful to bacteria.

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LC50 fish 1	9640 - 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)

Isopropyl Alcohol (2-Propanol) (67-63-0)	
LC50 fish 1	9640 - 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)

Phenolphthalein, ACS (77-09-8)	
EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)

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12.2. Persistence and degradability

Universal Indicator, Bogens in Alcohol	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No test data on mobility of the substance available.
Isopropyl Alcohol (2-Propanol) (67-63-0)	
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.19 g O ₂ /g substance
Chemical oxygen demand (COD)	2.23 g O ₂ /g substance
ThOD	2.4 g O ₂ /g substance
Water (7732-18-5)	
Persistence and degradability	Not established.
Thymol Blue, Free Acid (76-61-9)	
Persistence and degradability	Not established.
Methyl Orange, Sodium Salt, ACS (547-58-0)	
Persistence and degradability	Non degradable in the soil. Not readily biodegradable in water.
Phenolphthalein, ACS (77-09-8)	
Persistence and degradability	Readily biodegradable in water.
Bromothymol Blue, Free Acid (76-59-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Universal Indicator, Bogens in Alcohol	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Isopropyl Alcohol (2-Propanol) (67-63-0)	
Log Pow	0.05 (Weight of evidence approach, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Water (7732-18-5)	
Bioaccumulative potential	Not established.
Thymol Blue, Free Acid (76-61-9)	
Bioaccumulative potential	Not established.
Methyl Orange, Sodium Salt, ACS (547-58-0)	
Log Pow	-0.66 (Estimated value)
Bioaccumulative potential	Not bioaccumulative.
Phenolphthalein, ACS (77-09-8)	
Log Pow	2.41 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Bromothymol Blue, Free Acid (76-59-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

Universal Indicator, Bogens in Alcohol	
Surface tension	0.021 N/m (25 °C)
Ecology - soil	No (test)data on mobility of the substance available.
Isopropyl Alcohol (2-Propanol) (67-63-0)	
Surface tension	0.021 N/m (25 °C)
Ecology - soil	No (test)data on mobility of the substance available.
Phenolphthalein, ACS (77-09-8)	
Ecology - soil	No (test)data on mobility of the substance available.

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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

- Regional legislation (waste) : LWCA (the Netherlands): KGA category 03.
- Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.
- Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN1993 Flammable liquids, n.o.s., 3, II
- UN-No. (DOT) : UN1993
- Proper Shipping Name (DOT) : Flammable liquids, n.o.s.
- Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Packing group (DOT) : II - Medium Danger
- Hazard labels (DOT) : 3 - Flammable liquid



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
- DOT Packaging Bulk (49 CFR 173.xxx) : 242
- DOT Symbols : G - Identifies PSN requiring a technical name
- DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32 F).
TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
- DOT Packaging Exceptions (49 CFR 173.xxx) : 150
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
- DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
- Other information : No supplementary information available.

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SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Isopropyl Alcohol (2-Propanol)	CAS-No. 67-63-0	70%
Phenolphthalein, ACS	CAS-No. 77-09-8	0.02%

Isopropyl Alcohol (2-Propanol) (67-63-0)

SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Serious eye damage or eye irritation Health hazard - Specific target organ toxicity (single or repeated exposure)
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15.2. International regulations

CANADA

No additional information available

Thymol Blue, Free Acid (76-61-9)

Listed on the Canadian DSL (Domestic Substances List)

Methyl Orange, Sodium Salt, ACS (547-58-0)

Listed on the Canadian DSL (Domestic Substances List)
Not listed on the Canadian DSL (Domestic Substances List)

Phenolphthalein, ACS (77-09-8)

Listed on the Canadian DSL (Domestic Substances List)

Bromothymol Blue, Free Acid (76-59-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Thymol Blue, Free Acid (76-61-9)

Not listed on the Canadian IDL (Ingredient Disclosure List)

Phenolphthalein, ACS (77-09-8)

Listed on the Canadian IDL (Ingredient Disclosure List)

Bromothymol Blue, Free Acid (76-59-5)

Not listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

This product can expose you to Phenolphthalein, ACS, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Phenolphthalein, ACS (77-09-8)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

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SECTION 16: Other information

Revision date : 05/15/2018

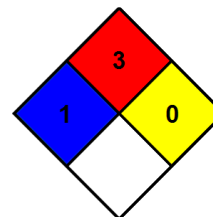
Full text of H-phrases: see section 16:

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

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