

Safety Data Sheet

Bogen Universal Indicator Solution



Section 1 Product Description

Product Name: Bogen Universal Indicator Solution
Recommended Use: Science education applications
Synonyms: Universal pH Indicator
Supplier: C2A Sales & Supplies (Barbados) Ltd.
#3 Canewood Road, Jackson, St. Michael, Barbados
Tel: (246) 426-1256

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Flammable liquid and vapor. May cause cancer. Causes damage to organs. Toxic to aquatic life.

GHS Classification:

Carcinogenicity Category 1A, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1, Hazardous to the aquatic environment - Acute Category 2, Flammable Liquid Category 3

Other Safety Precautions: IF exposed: Call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	52.36
Ethyl alcohol	64-17-5	42.95
Isopropyl Alcohol	67-63-0	2.4
Methanol	67-56-1	2.15
Phenolphthalein	77-09-8	0.06
Bromothymol Blue, Sodium Salt	34722-90-2	0.06
Methyl Red	493-52-7	0.02

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Safety Data Sheet

Section 5

Firefighting Procedures

Extinguishing Media:	Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Vapors may travel back to ignition source. Closed Containers exposed to heat may explode.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS. Ventilate the contaminated area. Evaporation of volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation. Isolate area. Keep unnecessary personnel away.
Methods for Clean-up	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7

Handling and Storage

Handling:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Storage:	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Suitable for any general chemical storage.
Storage Code:	Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

Section 8

Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Ethyl alcohol	N/A	1000 ppm STEL	1000 ppm TWA; 1900 mg/m3 TWA	N/A
Isopropyl Alcohol	200 ppm TWA	400 ppm STEL	400 ppm TWA; 980 mg/m3 TWA	N/A
Methanol	200 ppm TWA	250 ppm STEL	200 ppm TWA; 260 mg/m3 TWA	N/A
Phenolphthalein	N/A	N/A	N/A	N/A
Bromothymol Blue, Sodium Salt	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures:	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.
Personal Protective Equipment (PPE):	Lab coat, apron, eye wash, safety shower.
Respiratory Protection:	
Respirator Type(s):	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
Eye Protection:	Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection:	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves:	Nitrile

Safety Data Sheet

Section 9

Physical Data

Formula: See Section 3
Molecular Weight: No data available
Appearance: Colorless Dark Red Liquid
Odor: Moderate Alcohol Odor
Odor Threshold: No data available
pH: No data available
Melting Point: Estimated -32 C -114 C
Boiling Point: Estimated 81 C 79 C
Flash Point: Estimated 24 C
Flammable Limits in Air: Ethanol: 3.3 - 19%

Vapor Pressure: No data available
Evaporation Rate (BuAc=1): No data available
Vapor Density (Air=1): No data available
Specific Gravity: < 1
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: 47.5%

Section 10

Reactivity Data

Reactivity: Not generally reactive under normal conditions.
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Temperatures above flash point in combination with sparks, open flames, or other sources of ignition.
Incompatible Materials: Water-reactive materials, Strong oxidizing agents, Acids, Strong reducing agents, Magnesium
Hazardous Polymerization: Will not occur

Section 11

Toxicity Data

Routes of Entry: Inhalation and skin contact.
Symptoms (Acute): Dizziness, Depressed Activity, Eye disorders, Central Nervous System Depression
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Isopropyl Alcohol	67-63-0	Oral LD50 Rat 5045 mg/kg Oral LD50 Mouse 3600 mg/kg		INHALATION LC50 Rat 16000 PPM 8H
Methanol	67-56-1	Oral LD50 Mouse 7300 mg/kg		INHALATION LC50 Rat 64000 PPM 4H
Phenolphthalein	77-09-8			
Bromothymol Blue, Sodium Salt	34722-90-2			

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Ethyl alcohol	64-17-5	Listed	Listed	Listed
Isopropyl Alcohol	67-63-0	Listed	Not listed	Not listed
Methanol	67-56-1	Not listed	Not listed	Not listed
Phenolphthalein	77-09-8	Listed	Listed	Listed
Bromothymol Blue, Sodium Salt	34722-90-2	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: Eyes
Chronic: Eyes

Safety Data Sheet

Section 12

Ecological Data

Overview:	This material is not expected to be harmful to the ecology.
Mobility:	This material is expected to have high mobility in soil. It absorbs weakly to most soil types.
Persistence:	Biodegradation, Evaporation into atmosphere
Bioaccumulation:	Bioconcentration is not expected to occur.
Degradability:	Biodegrades at a moderate rate.
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Ethyl alcohol	64-17-5	96 HR LC50 PIMEPHALES PROMELAS 13400 - 15100 MG/L [FLOW-THROUGH] 96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 12 - 16 ML/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 2 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA 10800 MG/L 48 HR LC50 DAPHNIA MAGNA 9268 - 14221 MG/L
Isopropyl Alcohol	67-63-0	96 HR LC50 LEPOMIS MACROCHIRUS > 1400000 MG/L 96 HR LC50 PIMEPHALES PROMELAS 11130 MG/L [STATIC] 96 HR LC50 PIMEPHALES PROMELAS 9640 MG/L [FLOW-THROUGH] 48 HR EC50 DAPHNIA MAGNA 13299 MG/L 72 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L 96 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L
Methanol	67-56-1	96 HR LC50 LEPOMIS MACROCHIRUS 13500 - 17600 MG/L [FLOW-THROUGH] 96 HR LC50 ONCORHYNCHUS MYKISS 18 - 20 ML/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 19500 - 20700 MG/L [FLOW-THROUGH] 96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC] 96 HR LC50 PIMEPHALES PROMELAS 28200 MG/L [FLOW-THROUGH]
Phenolphthalein	77-09-8	No data available
Bromothymol Blue, Sodium Salt	34722-90-2	No data available

Section 13

Disposal Information

Disposal Methods:	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s):	If discarded, this product is considered a RCRA ignitable waste, D001.

Section 14

Transport Information

Ground - DOT Proper Shipping Name: UN 1170 ETHANOL SOLUTIONS Class 3 P.G. III	Air - IATA Proper Shipping Name: UN 1170 ETHANOL SOLUTIONS Class 3 P.G. III
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Safety Data Sheet

Section 15

Regulatory Information

TSCA Status:

All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Isopropyl Alcohol	67-63-0	Isopropyl alcohol	No	No	No	No
Methanol	67-56-1	Methanol	No	5000 lb final RQ; 2270 kg final RQ	No	No
Phenolphthalein	77-09-8	Phenolphthalein	No	No	No	No
Bromothymol Blue, Sodium Salt	34722-90-2	No	No	No	No	No

California Prop 65:



WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

Section 16

Additional Information

Revised: 03/22/2024

Replaces: 04/20/2020

Printed: 01-17-2025

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. C2A Sales & Supplies (Barbados) Ltd. makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health