

# Safety Data Sheet

## Green Indicator Solution

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Green Indicator Solution  
**Recommended Use:** Science education applications  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

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

**DANGER**



Highly flammable liquid and vapor. Toxic if swallowed. Harmful in contact with skin or if inhaled. Causes damage to organs. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life.

**GHS Classification:**

Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1, Flammable Liquid Category 2, Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2, Acute Toxicity - Oral Category 3, Hazardous to the aquatic environment - Acute Category 3, Acute Toxicity - Inhalation Dust / Mist Category 4, Acute Toxicity - Dermal Category 4

**Other Safety Precautions:** IF exposed: Call a POISON CENTER or doctor/physician.

**Acute Toxicity Oral Contains** 68.36175 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Dermal Contains** 67.870875 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Vapor Contains** 88.97635 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Dust/Mist Contains** 68.36175 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Ethanol	64-17-5	65.77
P-Nitrophenol	100-02-7	21.4
Water	7732-18-5	3.83
2-Propanol	67-63-0	3.63
Methanol	67-56-1	3.27
Thymolphthalein	125-20-2	2.1

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.  
**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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## Section 5

## Firefighting Procedures

<b>Extinguishing Media:</b>	Use dry chemical, CO2 or appropriate foam.
<b>Fire Fighting Methods and Protection:</b>	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
<b>Fire and/or Explosion Hazards:</b>	Fire or excessive heat may produce hazardous decomposition products.
<b>Hazardous Combustion Products:</b>	Carbon dioxide, Carbon monoxide

## Section 6

## Spill or Leak Procedures

<b>Steps to Take in Case Material Is Released or Spilled:</b>	Ventilate the contaminated area. Evacuate the area promptly. Avoid the generation of dusts during 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. Do not allow the spilled product to enter public drainage system or open waterways.
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## Section 7

## Handling and Storage

<b>Handling:</b>	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. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution.
<b>Storage:</b>	Store locked up. Keep container tightly closed in a cool, well-ventilated place.
<b>Storage Code:</b>	Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

## Section 8

## Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Ethanol	N/A	1000 ppm STEL	1000 ppm TWA; 1900 mg/m3 TWA	N/A
2-Propanol	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

### Control Parameters

<b>Engineering Measures:</b>	No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use. Provide adequate ventilation.
<b>Personal Protective Equipment (PPE):</b>	Lab coat, apron, eye wash, safety shower.
<b>Respiratory Protection:</b>	No respiratory protection required under normal conditions of use.
<b>Respirator Type(s):</b>	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
<b>Eye Protection:</b>	Wear chemical splash goggles when handling this product. Have an eye wash station available.
<b>Skin Protection:</b>	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.
<b>Gloves:</b>	Nitrile

## Section 9

## Physical Data

<b>Formula:</b> See Section 3	<b>Vapor Pressure:</b> No data available
<b>Molecular Weight:</b>	<b>Evaporation Rate (BuAc=1):</b> No data available
<b>Appearance:</b> Colorless Liquid	<b>Vapor Density (Air=1):</b> No data available

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**Odor:** Moderate Alcohol Odor Sweet  
**Odor Threshold:** No data available

**pH:** No data available  
**Melting Point:** -114 C

**Boiling Point:** 79 C

**Flash Point:** 17 C

**Flammable Limits in Air:** No data available

**Specific Gravity:** No data available

**Solubility in Water:** Soluble

Practically Insoluble

**Log Pow (calculated):** No data available

**Autoignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** No data available

**Percent Volatile by Volume:** No data available

## 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:** Organic Peroxides, Strong acids, Oxidizing materials, Strong oxidizing agents, Strong alkalis, Water-reactive materials  
**Hazardous Decomposition Products:** Carbon oxides  
**Hazardous Polymerization:** Will not occur

## Section 11

## Toxicity Data

**Routes of Entry:** Inhalation and ingestion., Inhalation, ingestion, eye or skin contact.  
**Symptoms (Acute):** Respiratory Irritation, Dermatitis, Central Nervous System Depression, Dizziness, Eye Irritation, Respiratory disorders, Eye disorders, None Known  
**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		
2-Propanol	67-63-0	Oral LD50 Rat 5045 mg/kg Oral LD50 Mouse 3600 mg/kg		INHALATION LC50 Rat 16000 ppm
Methanol	67-56-1	Oral LD50 Mouse 7300 mg/kg		INHALATION LC50 Rat 64000 ppm

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Ethanol	64-17-5	Listed	Listed	Listed
2-Propanol	67-63-0	Listed	Not listed	Not listed
Methanol	67-56-1	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:** Central Nervous System, Eyes, No information available  
**Chronic:** No information available, Eyes, To the best of our knowledge, the toxicological properties of this mixture have not been thoroughly evaluated., Not listed as a carcinogen by IARC, NTP or OSHA.

## Section 12

## Ecological Data

**Overview:** Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.  
**Mobility:** No data  
**Persistence:** Biodegradation  
**Bioaccumulation:** Bioconcentration is not expected to occur.

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**Degradability:** Biodegrades quickly.  
**Other Adverse Effects:** No data

Chemical Name	CAS Number	Eco Toxicity
Ethanol	64-17-5	96 HR LC50 PIMEPHALES PROMELAS > 100 MG/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
P-Nitrophenol	100-02-7	96 HR LC50 ONCORHYNCHUS MYKISS 3.8 MG/L [STATIC] 96 HR LC50 POECILIA RETICULATA 14 MG/L [STATIC] 96 HR LC50 BRACHYDANIO RERIO 10.4 MG/L [STATIC] 96 HR LC50 LEPOMIS MACROCHIRUS 6.6 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 3.1 - 7.1 MG/L 96 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 2.3 - 7.71 MG/L 72 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 1.95 - 14.6 MG/L
Water	7732-18-5	96 HR EC50 DESMODESMUS SUBSPICATUS 23.7 MG/L No data available
2-Propanol	67-63-0	96 HR LC50 LEPOMIS MACROCHIRUS > 1400000 µG/L 96 HR LC50 PIMEPHALES PROMELAS 11130 MG/L [STATIC] 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 PIMEPHALES PROMELAS > 100 MG/L [STATIC]

## 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):** D001

## Section 14

## Transport Information

**Ground - DOT Proper Shipping Name:**  
UN1170, Ethyl Alcohol Solutions, 3, II

**Air - IATA Proper Shipping Name:**  
UN1170, Ethyl Alcohol Solutions, 3, II

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## 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
Ethanol	64-17-5	No	No	No	No	No
P-Nitrophenol	100-02-7	4-Nitrophenol	No	100 lb final RQ; 45.4 kg final RQ	No	No
2-Propanol	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

**California Prop 65:**

WARNING: This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

## Section 16

## Additional Information

**Revised: 09/03/2014****Replaces: 08/26/2014****Printed: 09-12-2014**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply 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