

# Safety Data Sheet

## Orange Indicator

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

### Section 1 Product Description

**Product Name:** Orange Indicator  
**Recommended Use:** Science education applications  
**Synonyms:** N/A  
**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. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs.

**GHS Classification:**

Serious Eye Damage/Eye Irritation Category 1, Carcinogenicity Category 1B, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1, Flammable Liquid Category 2, Skin Corrosion/Irritation Category 2, Germ Cell Mutagenicity Category 2, Reproductive Toxicity Category 2, Acute Toxicity - Oral Category 4

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

**Acute Toxicity Oral Contains** 70.1825 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Dermal Contains** 70.1825 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Vapor Contains** 90.1825 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Dust/Mist Contains** 90.1825 % 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	60.18
m-Nitrophenol	554-84-7	20
Phenolphthalein	77-09-8	10
Water	7732-18-5	3.5
2-Propanol	67-63-0	3.33
Methanol	67-56-1	2.99

### 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:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

# Safety Data Sheet

**Skin Contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

## Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.

**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. Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area.

**Environmental Precautions:** Ensure clean-up measures are in compliance with OSHA (29 CFR 1910.120). 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 not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Bond and ground containers when transferring liquid.

**Storage:** Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed in a cool, well-ventilated place.

**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)
Ethanol	N/A	1000 ppm STEL	1000 ppm TWA; 1900 mg/m3 TWA	N/A
Phenolphthalein	N/A	N/A	N/A	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**

**Engineering Measures:** 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.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** No respiratory protection required under normal conditions of use.

**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.

# Safety Data Sheet

**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, Butyl rubber, Neoprene, Polyvinyl chloride

## Section 9 Physical Data

<b>Formula:</b> N/A	<b>Vapor Pressure:</b> 59.3 mmHG at 25 °C for ethyl alcohol
<b>Molecular Weight:</b> N/A	<b>Evaporation Rate (BuAc=1):</b> N/A
<b>Appearance:</b> Colorless Pale yellow White to off-white Liquid	<b>Vapor Density (Air=1):</b> 1.59 (ethyl alcohol)
<b>Odor:</b> Moderate Alcohol Odor	<b>Specific Gravity:</b> N/A
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Soluble
<b>pH:</b> No data available	<b>Log Pow (calculated):</b> No data available
<b>Melting Point:</b> -114 C	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> 79 C	<b>Decomposition Temperature:</b> No data available
<b>Flash Point:</b> 17 C	<b>Viscosity:</b> No data available
<b>Flammable Limits in Air:</b> 3.3% 19%	<b>Percent Volatile by Volume:</b> Approx. 95%

## Section 10 Reactivity Data

**Reactivity:** No data available

**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, Water-reactive materials

**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry:** Inhalation and skin contact.

**Symptoms (Acute):** , Liver disorders

**Delayed Effects:** No data available

Acute Toxicity: Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
m-Nitrophenol	554-84-7	Oral LD50 Rat 328 mg/kg Oral LD50 Mouse 1070 mg/kg Oral LD50 MAMMAL 250 mg/kg	Dermal LD50 MAMMAL 543 mg/kg	
Phenolphthalein	77-09-8			
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
-----------------------------------	------------	------	-----	------

# Safety Data Sheet

Ethanol	64-17-5	Listed	Listed	Listed
Phenolphthalein	77-09-8	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:**

<b>Mutagenicity:</b>	Evidence of a mutagenic effect.
<b>Teratogenicity:</b>	Evidence of a teratogenic effect (birth defect).
<b>Sensitization:</b>	No evidence of a sensitization effect.
<b>Reproductive:</b>	Evidence of negative reproductive effects.
<b>Target Organ Effects:</b>	
<b>Acute:</b>	See Section 2
<b>Chronic:</b>	Not listed as a carcinogen by IARC, NTP or OSHA., Mutation data cited., Reproductive data cited., Prolonged Exposure may lead to cobalt sensitization. Symptoms include formation of goiter, reduced thyroid activity, and other chronic effects.

## Section 12 Ecological Data

<b>Overview:</b>	This material is not expected to be harmful to the ecology.
<b>Mobility:</b>	No data
<b>Persistence:</b>	Adsorbs to soil/solids, Biodegradation
<b>Bioaccumulation:</b>	No data
<b>Degradability:</b>	No data
<b>Other Adverse Effects:</b>	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
Phenolphthalein	77-09-8	No data available
Water	7732-18-5	
2-Propanol	67-63-0	
Methanol	67-56-1	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 96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC]

## Section 13 Disposal Information

<b>Disposal Methods:</b>	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
<b>Waste Disposal Code(s):</b>	Not Determined

## Section 14 Transport Information

<b>Ground - DOT Proper Shipping Name:</b> UN1993, Flammable liquid, n.o.s. (ethyl alcohol, methyl isobutyl ketone), 3, II	<b>Air - IATA Proper Shipping Name:</b> Not regulated for air transport by IATA.
--	---

## 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

# Safety Data Sheet

m-Nitrophenol	554-84-7	No	No	100 lb final RQ (listed under Nitrophenol, mixed); 45.4 kg final RQ (listed under Nitrophenol, mixed)	No	No
Phenolphthalein	77-09-8	Phenolphthalein	No	No	No	No
2-Propanol	67-63-0	No	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: 08/27/2014**

**Printed: 04-21-2015**

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