

## SECTION 1: Identification of the substance/mixture

### 1.1. Product identifier

Product form	: Substance
Substance name	: Phenolphthalein Solution
Formula	: C <sub>20</sub> H <sub>14</sub> O <sub>4</sub>
Molecular weight	: 318.32 g/mol
Product code	: LW-PHENOL
Concentration	: 1%
CAS No.	: 77-09-8

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	: Laboratory chemicals, Synthesis of substances
------------------------------	---

### 1.3. Emergency telephone number

Emergency number	: 1.800.424.9300 (USA) +1.703.527.3887 (INT)
------------------	---

## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225  
Eye irritation (Category 2A), H319  
Germ cell mutagenicity (Category 2), H341  
Carcinogenicity (Category 2), H351  
Reproductive toxicity (Category 2), H361

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2. GHS Label elements, including precautionary statements

Pictogram : 

Signal word : Danger

Hazard statement(s)

H225 : Highly flammable liquid and vapor.  
H319 : Causes serious eye irritation.  
H341 : Suspected of causing genetic defects.  
H351 : Suspected of causing cancer.

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

H361	: Suspected of damaging fertility or the unborn child.
Precautionary statement(s)	
P201	: Obtain special instructions before use.
P202	: Do not handle until all safety precautions have been read and understood.
P210	: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	: Keep container tightly closed.
P240	: Ground/bond container and receiving equipment.
P241	: Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	: Use only non-sparking tools.
P243	: Take precautionary measures against static discharge.
P264	: Wash skin thoroughly after handling.
P280	: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	: IF exposed or concerned: Get medical advice/ attention.
P337 + P313	: If eye irritation persists: Get medical advice/ attention.
P370 + P378	: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235	: Store in a well-ventilated place. Keep cool.
P405	: Store locked up.
P501	: Dispose of contents/ container to an approved waste disposal plant.

### 2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

none

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

#### Hazardous components

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Component	Classification	Concentration
Ethanol		
CAS-No. 64-17-5	Flam. Liq. 2; Eye Irrit. 2A;	>= 90 - <= 100%
EC-No. 200-578-6	H225, H319	
Index-No. 603-002-00-5		
Phenolphthalein Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
CAS-No. 77-09-8	Muta. 2; Carc. 1B; Repr. 2;	>= 1 - < 5%
EC-No. 201-004-7	H341, H350, H361	
Index-No. 604-076-00-1		

For the full text of the H-Statements mentioned in this Section, see Section 16.

### SECTION 4: Description of first aid measures

#### 4.1. Description of first aid measures

- General advice : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- First-aid measures after inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- First-aid measures after skin contact : Wash off with soap and plenty of water. Consult a physician.
- First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult physician.

#### 4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture

Carbon oxides

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4. More Information

Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3. Methods and material for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### 6.4. Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

For precautions see section 2.2.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Flammable liquids

### 7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Components with workplace control parameters

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Component	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWA	1,000.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation Confirmed animal carcinogen with unknown relevance to humans		
		TWA	1,000 ppm 1,900 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1,000 ppm 1,900 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		
		TWA	1,000.000000 ppm 1,900.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		
		TWA	1,000.000000 ppm 1,900.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		STEL	1,000.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Confirmed animal carcinogen with unknown relevance to humans		

### 8.2. Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 8.3. Personal protective equipment

Eye protection : Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

---

contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.2 mm

Break through time: 30 min

Material tested: Dermatril® P (KCL 743 / Aldrich Z677388, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

- Body protection : Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection : Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.  
If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Environmental exposure controls : Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance	: Form: clear, liquid Color: colorless
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: 14 °C (57 °F) - closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper/lower flammability or explosive limits	: Upper explosion limit: 19 %(V) Lower explosion limit: 3.3 %(V)
Vapor pressure	: No data available
Vapor density	: No data available
Relative density	: No data available
Water solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: 363 °C (685 °F)
Decomposition temperature	: No data available
Viscosity	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: No data available

#### 9.2. Other safety information

No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

Vapors may form explosive mixture with air.

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 10.4. Conditions to avoid

Heat, flames and sparks.

### 10.5. Incompatible materials

Oxidizing agents, Alkali metals, Strong oxidizing agents, Ammonia, Peroxides

### 10.6. Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : No data available  
Inhalation: No data available  
Dermal: No data available  
No data available

Skin corrosion/irritation : No data available

Serious eye damage/irritation : No data available

Respiratory or skin sensitization : No data available

Germ cell mutagenicity : No data available

#### Carcinogenicity

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen.

IARC: : 2B - Group 2B: Possibly carcinogenic to human (Phenolphthalein)

NTP: : Reasonably anticipated to be a human carcinogen  
(Phenolphthalein)

OSHA: : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity : No data available

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : May cause respiratory irritation.

Aspiration hazard : No data available

Additional Information : RTECS: Not available



# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Central nervous system depression, narcosis, Nausea, Dizziness, Damage to the heart. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Phenolphthalein)

### SECTION 12: Ecological information

- 12.1. Toxicity** : No data available
- 12.2. Persistence and degradability**
- Biodegradability : No data available
- 12.3. Bioaccumulative potential** : No data available
- 12.4. Mobility in soil** : No data available
- 12.5. Results of PBT and vPvB assessment** : PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6. Other adverse effects** : No data available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Product : Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
- Contaminated Packaging : Dispose of as unused product.

### SECTION 14: Transport information

#### DOT (US)

- UN number : 1170
- Class : 3
- Packing group : III
- Proper shipping name : Ethanol solutions
- Reportable Quantity (RQ) : no data available

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Poison Inhalation Hazard : No

**IMDG**

UN number : 1170

Class : 3

Packing group : III

EMS-No F-E, S-D

Proper shipping name : ETHANOL SOLUTION

**IATA**

UN number : 1170

Class : 3

Packing group : III

Proper shipping name : Ethanol solution

### SECTION 15: Regulatory information

#### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Phenolphthalein	CAS-No.	Revision Date
	77-09-8	2007-03-01

#### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

#### Massachusetts Right To Know Components

Ethanol	CAS-No.	Revision Date
	64-17-5	2007-03-01

#### Pennsylvania Right To Know Components

Ethanol	CAS-No.	Revision Date
	64-17-5	2007-03-01

#### New Jersey Right To Know Components

Ethanol	CAS-No.	Revision Date
Phenolphthalein	64-17-5	2007-03-01
	77-09-8	2007-03-01

#### California Prop. 65 Components

Ethanol	CAS-No.	Revision Date
---------	---------	---------------

# Phenolphthalein Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Phenolphthalein

77-09-8

2007-09-28

### SECTION 16: Other information

#### Full text of H-Statements referred to under sections 2 and 3.

Carc.	: Carcinogenicity
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
H225	: Highly flammable liquid and vapor.
H319	: Causes serious eye irritation.
H341	: Suspected of causing genetic defects.
H350	: May cause cancer.
H351	: Suspected of causing cancer.
H361	: Suspected of damaging fertility or the unborn child.
Muta.	: Germ cell mutagenicity
Repr.	: Reproductive toxicity

#### HMIS Rating

Health Hazard	: 2
Chronic Health Hazard	: *
Flammability	: 3
Physical Hazard	: 0

#### NFPA Rating

Health hazard	: 2
Fire Hazard	: 3
Reactivity Hazard	: 0

#### Further Information

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Loudwolf Holdings Ltd. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his/her application.