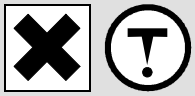
TCI AMERICA

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	**Harmful compound, minimize exposure.** **Irritating to skin, eyes, and the respiratory system.** **CARCINOGEN. MINIMIZE EXPOSURE.** **Possible sensitizer.**	

Section I. Chemical Product and Company Identification

Chemical Name **Phenolphthalein**

Catalog Number	P0094
Synonym	Not available.
Chemical Formula	$C_{20}H_{14}O_4$
CAS Number	77-09-8

Supplier
TCI America
9211 N. Harborgate St.
Portland OR
1-800-423-8616

In case of Emergency Call
Chemtrec®
(800) 424-9300 (U.S.)
(703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Phenolphthalein	77-09-8	----------	This chemical is classified as a carcinogen. There is no acceptable exposure limit for a carcinogen.	Not available.

Section III. Hazards Identification

Acute Health Effects

Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Chronic Health Effects

CARCINOGENIC EFFECTS : Carcinogenic by RTECS criteria.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Tumorigenic Effects.
Rat TDLo Oral 364 gm/kg/2 years continous
TOXIC Effects:
Tumorigenic - Carcinogenic by RTECS criteria
Kidney, urtetr, and Bladder - Tumors
Endocrine - Adrenal cortex tumors
Mouse TDLo Oral 288400 mg/kg/103 weeks continuous
TOXIC Effects:
Tumorigenic - Carcinogenic by RTECS crtieria
Blood - Lymphomas including Hodgkin;s disease
Mouse TDLo Oral 281 gm/kg/2 years continuous
TOXIC Effects:
Tumorigenic - Carcinogenic by RTECS criteria
Endocrine - Tumors
Skin and Appendages - Tumors
DEVELOPMENTAL TOXICITY: Reproductive Effects.
Mouse TDLo Oral 840 mg/kg, female multigenerations
TOXIC Effects:
Effects on Newborn - Live birth index
Mouse TDLo Oral 840 mg/kg, female multigenerations
TOXIC Effects:
Specific Developmental Abnormalities - Urogenital system
Mouse TDLo Oral 123.48 gm/kg, female 21 weeks prior to mating
TOIXC Effects:
Effects on Newborn - Live birth index

Section IV. First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Inhalation

If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.

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Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

Section V. Fire and Explosion Data

Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.
Flash Points	Not available.	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO_2).		
Fire Hazards	Not available.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations.		

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Harmful material. Irritating material. Carcinogenic material. Possible sensitizer. Use a shovel to put the material into a convenient waste disposal container. Finish cleaning the spill by rinsing any contaminated surfaces with copious amounts of water. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and Storage

Handling and Storage Information	HARMFUL. IRRITANT. CARCINOGEN. POSSIBLE SENSITIZER. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. Do not breathe dust.

Section VIII. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent. 
Exposure Limits	This chemical is classified as a carcinogen. There is no acceptable exposure limit for a carcinogen.

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Solid. (White, Crystalline powder.)	Solubility	Soluble in 95% alcohol and ether. Slightly soluble in chloroform. One gram dissolves in 12 ml alcohol, in ~100 ml ether. Almost insoluble in water. Soluble in diluted solutions of alkali hydroxides and hot solutions of alkali carbonates forming a red solution.
Specific Gravity	Not available.		
Molecular Weight	318.32	Partition Coefficient	Not available.
Boiling Point	Not available.	Vapor Pressure	Not applicable.
Melting Point	261°C (501.8°F)	Vapor Density	Not available.
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Not available.
Viscosity	Not available.	Taste	Not available.

Section X. Stability and Reactivity Data

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light.
Incompatibilities	Reactive with strong oxidizing agents.

Continued on Next Page **Emergency phone number (800) 424-9300**

Section XI. Toxicological Information

RTECS Number	SM8380000
Routes of Exposure	Eye Contact. Ingestion. Inhalation.
Toxicity Data	Not available.
Chronic Toxic Effects	**CARCINOGENIC EFFECTS** : Carcinogenic by RTECS criteria. **MUTAGENIC EFFECTS** : Not available. **TERATOGENIC EFFECTS** : Tumorigenic Effects. Rat TDLo Oral 364 gm/kg/2 years continous TOXIC Effects: Tumorigenic - Carcinogenic by RTECS criteria Kidney, urtetr, and Bladder - Tumors Endocrine - Adrenal cortex tumors Mouse TDLo Oral 288400 mg/kg/103 weeks continuous TOXIC Effects: Tumorigenic - Carcinogenic by RTECS crtieria Blood - Lymphomas including Hodgkin;s disease Mouse TDLo Oral 281 gm/kg/2 years continuous TOXIC Effects: Tumorigenic - Carcinogenic by RTECS criteria Endocrine - Tumors Skin and Appendages - Tumors **DEVELOPMENTAL TOXICITY**: Reproductive Effects. Mouse TDLo Oral 840 mg/kg, female multigenerations TOXIC Effects: Effects on Newborn - Live birth index Mouse TDLo Oral 840 mg/kg, female multigenerations TOXIC Effects: Specific Developmental Abnormalities - Urogenital system Mouse TDLo Oral 123.48 gm/kg, female 21 weeks prior to mating TOIXC Effects: Effects on Newborn - Live birth index
Acute Toxic Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	Phenolphthalein's production and use as an acid/base indicator, as a laboratory reagent, and its former use as a laxative may result in its release to the environment through various waste streams. If released to air, an estimated vapor pressure of 6.7X10-13 mm Hg at 25 deg C indicates phenolphthalein will exist solely in the particulate phase in the ambient atmosphere. Particulate-phase phenolphthalein will be removed from the atmosphere by wet and dry deposition. If released to soil, phenolphthalein is expected to have moderate mobility based upon a Koc of 490. Volatilization from moist soil surfaces is not expected to be an important fate process based upon an estimated Henry's Law constant of 9.0X10-16 atm-cu m/mole. If released into water, phenolphthalein is expected to adsorb to suspended solids and sediment based upon the Koc. Volatilization from water surfaces is not expected to be an important fate process based upon this compound's estimated Henry's Law constant. An estimated BCF of 14 suggests the potential for bioconcentration in aquatic organisms is low. Occupational exposure to phenolphthalein may occur through inhalation and dermal contact with this compound at workplaces where phenolphthalein is produced or used.

Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

Section XIV. Transport Information

DOT Classification	Not a DOT controlled material (United States).
PIN Number	Not applicable.
Proper Shipping Name	Not applicable.
Packing Group (PG)	Not applicable.
DOT Pictograms	

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Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.
WHMIS Classification (Canada)	On DSL
EINECS Number (EEC)	201-004-7
EEC Risk Statements	R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin.
Japanese Regulatory Data	ENCS No. 9-1152

Section XVI. Other Information

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Notice to Reader

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.