



Phenolphthalein, ACS

Safety Data Sheet

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

Issue date: 11/05/2004

Revision date: 03/05/2020

Supersedes: 12/12/2016

Version: 1.3

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Phenolphthalein, ACS
CAS-No.	: 77-09-8
Product code	: 1.1350
Formula	: C ₂₀ H ₁₄ O ₄
Synonyms	: 1(3H)-isobenzofuranone, 3,3-bis(4-hydroxyphenyl)- / 2,2-bis(para-hydroxyphenyl) phthalide / 2,2-bis(p-hydroxyphenyl) phthalide / 2-bis(4-hydroxyphenyl)methylbenzoic acid / 3,3-bis(4-hydroxyphenyl)-1(3H)iso-benzofuranone / 3,3-bis(p-hydroxyphenyl) phthalide
BIG No	: 15948

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Laboratory chemical Veterinary medicine
------------------------------	--

1.3. Supplier

NEUTRON PHARMACHEMICAL CO
98, 9th Floor, Borjsaz Building, Azadi Ave, Tehran, Iran.
T 021-66906732-3 - F 021-66581408
info@neutronpharmaceutical.com -
www.neutronpharmaceutical.com

1.4. Emergency telephone number

Emergency number	: CHEMTREC: 125
------------------	-----------------

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Carcinogenicity Category 2 H351 Suspected of causing cancer
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: H351 - Suspected of causing cancer
Precautionary statements (GHS US)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P308+P313 - IF exposed or concerned: Get medical advice/attention. P405 - Store locked up. P501 - Dispose of contents/container to comply with local, state and federal regulations.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification	: Combustible Dust.
--	---------------------

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type	: Mono-constituent
----------------	--------------------

Phenolphthalein, ACS

Safety Data Sheet

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

Name	Product identifier	%	GHS US classification
Phenolphthalein, ACS (Main constituent)	(CAS-No.) 77-09-8	100	Carc. 2, H351

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
- First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
- First-aid measures after eye contact : Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
- First-aid measures after ingestion : Rinse mouth with water. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects (acute and delayed)

- Potential Adverse human health effects and symptoms : Slightly irritant to skin. Slightly irritant to eyes.
- Symptoms/effects after inhalation : AFTER INHALATION OF DUST: Slight irritation. Coughing.
- Symptoms/effects after skin contact : Slight irritation.
- Symptoms/effects after eye contact : Slight irritation.
- Symptoms/effects after ingestion : AFTER ABSORPTION OF LARGE QUANTITIES: Diarrhoea. Gastrointestinal complaints. Urine discolouration.
- Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Swelling of the skin. Itching. Skin rash/inflammation.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.
- Unsuitable extinguishing media : Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

5.2. Specific hazards arising from the chemical

- Fire hazard : DIRECT FIRE HAZARD. Most organic solids may burn if strongly heated.
- Explosion hazard : DIRECT EXPLOSION HAZARD. Most organic solids are liable to dust explosion hazard. INDIRECT EXPLOSION HAZARD. Dust cloud can be ignited by a spark. Reactions with explosion hazards: see "Reactivity Hazard".

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
- Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes.

Phenolphthalein, ACS

Safety Data Sheet

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

Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Do not breathe dust.
Emergency procedures : Stop release. Ventilate area. If a major spill occurs, all personnel should be immediately evacuated and the area ventilated.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. Provide equipment/receptacles with earthing.
Methods for cleaning up : Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with a soap solution. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid raising dust. Take precautions against electrostatic charges. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Powdered form: no compressed air for pumping over. Keep container tightly closed.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible products : Strong oxidizers. Strong bases.
Incompatible materials : Generation of airborne dust.
Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents.
Storage area : Store in a cool area. Store in a dry area. Store in a dark area. Keep container in a well-ventilated place. Keep locked up. Provide the tank with earthing. Meet the legal requirements.
Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Safety glasses. Gloves. Dust production: dust mask with filter type P1. Chemical resistant apron.

Materials for protective clothing:

GIVE GOOD RESISTANCE: natural rubber. neoprene. nitrile rubber. PVC

Hand protection:

Gloves

Phenolphthalein, ACS

Safety Data Sheet

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

Eye protection:

Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing

Respiratory protection:

Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Crystalline powder.
Color	: White to light yellow
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: 263 °C
Freezing point	: No data available
Boiling point	: > 450 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: < 0.00001 hPa
Relative vapor density at 20 °C	: Not applicable
Relative density	: 1.3 (20 °C)
Specific gravity / density	: 1277 kg/m ³
Molecular mass	: 318.33 g/mol
Solubility	: Insoluble in water. Substance sinks in water. Soluble in ethanol. Soluble in acetone. Soluble in toluene. Soluble in bases. Water: 0.000336 g/100ml Ethanol: 8.5 g/100ml Ether: 1 g/100ml
Log Pow	: 2.41 (Experimental value)
Auto-ignition temperature	: 397 °C
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content	: 0 %
Other properties	: Basic reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Violent to explosive reaction with (strong) oxidizers and with (strong) reducers.

Phenolphthalein, ACS

Safety Data Sheet

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

10.2. Chemical stability

Unstable on exposure to light.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Avoid dust formation. High temperature. Incompatible materials.

10.5. Incompatible materials

Strong oxidizers. Strong bases.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Likely routes of exposure	: Inhalation. Skin and eye contact.
Potential Adverse human health effects and symptoms	: Slightly irritant to skin. Slightly irritant to eyes.
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST: Slight irritation. Coughing.
Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: Slight irritation.
Symptoms/effects after ingestion	: AFTER ABSORPTION OF LARGE QUANTITIES: Diarrhoea. Gastrointestinal complaints. Urine discolouration.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Swelling of the skin. Itching. Skin rash/inflammation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Photodegradation in the air. Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Slightly harmful to crustacea. Severe water pollutant (surface water). Slightly harmful to algae. pH shift.

Phenolphthalein, ACS (77-09-8)

EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
----------------	--

Phenolphthalein, ACS

Safety Data Sheet

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

12.2. Persistence and degradability

Phenolphthalein, ACS (77-09-8)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

12.3. Bioaccumulative potential

Phenolphthalein, ACS (77-09-8)

Log Pow	2.41 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

Phenolphthalein, ACS (77-09-8)

Ecology - soil	No (test)data on mobility of the substance available.
----------------	---

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Dissolve or mix with a combustible solvent.

Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

Phenolphthalein, ACS (77-09-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

SARA Section 311/312 Hazard Classes	Health hazard - Carcinogenicity
-------------------------------------	---------------------------------

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Phenolphthalein, ACS	CAS-No. 77-09-8	100%
----------------------	-----------------	------

15.2. International regulations

CANADA

Phenolphthalein, ACS (77-09-8)

Listed on the Canadian DSL (Domestic Substances List)

Phenolphthalein, ACS

Safety Data Sheet

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

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Phenolphthalein, ACS (77-09-8)	
U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

⚠ WARNING: This product can expose you to Phenolphthalein, ACS, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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

Revision date : 03/05/2020

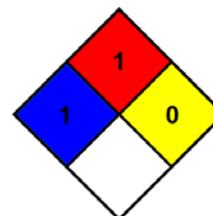
Full text of H-phrases: see section 16:

H351	Suspected of causing cancer
------	-----------------------------

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : E

E - Safety glasses, Gloves, Dust respirator

SDS US LabChem

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