

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 03/27/2007

Reviewed on 03/27/2007

1 Identification of substance:**Product details:****Product name:** 4-Aminophenol**Stock number:**

A13581

L02691

Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company

Johnson Matthey Catalog Company, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Emergency Phone: (978) 521-6300

CHEMTREC: (800) 424-9300

Web Site: www.alfa.com

Information Department: Health, Safety and Environmental Department**Emergency information:**

During normal hours the Health, Safety and Environmental Department.

After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:**Chemical characterization:****Description: (CAS#)**

4-Aminophenol (CAS# 123-30-8); 100%

Identification number(s):**EINECS Number:** 204-616-2**EU Number:** 612-128-00-X**3 Hazards identification****Hazard description:**

Xn Harmful

N Dangerous for the environment

Information pertaining to particular dangers for man and environment

R 20/22 Harmful by inhalation and if swallowed.

R 68 Possible risk of irreversible effects.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Classification system**NFPA Ratings (scale 0-4)**

Health = 2

Fire = 1

Reactivity = 0

HMIS ratings (scale 0-4)**(Hazardous Materials Identification System)**

HEALTH	1
FIRE	1
REACTIVITY	1

Health (acute effects) = 1

Flammability = 1

Reactivity = 1

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4 First aid measures**After inhalation**

Supply fresh air and to be sure call for a doctor.
Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents**

CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents Water

Special hazards caused by the material, its products of combustion or resulting gases:

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NO_x)

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

6 Accidental release measures**Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Measures for environmental protection:

Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Additional information:

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage**Handling****Information for safe handling:**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Prevent formation of dust.

Information about protection against explosions and fires:

Keep ignition sources away.

Protect against electrostatic charges.

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Fumes can combine with air to form an explosive mixture.

Storage**Requirements to be met by storerooms and receptacles:**

No special requirements.

Information about storage in one common storage facility:

Store away from air.

Do not store together with oxidizing and acidic materials.

Store away from chloroformates.

Store in the dark.

Further information about storage conditions:

Avoid contact with air/oxygen.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from exposure to light.

8 Exposure controls and personal protection**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Not required.

Additional information: No data

Personal protective equipment**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Crystalline powder
Color:	Off-white
	Pink
Odor:	Not determined

Change in condition

Melting point/Melting range:	186-190°C (367-374°F)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point:	> 188°C (> 370°F)
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Ignition temperature:	Not determined
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Decomposition temperature:	284°C (543°F)
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density:	Not determined
Solubility in / Miscibility with Water at 24°C (75°F):	6.4 g/l

10 Stability and reactivity**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:

Light
Acids
Oxidizing agents
Chloroformates
Air

Dangerous reactions No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide
Nitrogen oxides

11 Toxicological information**Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	56200 µg/kg (bwd) 1530 mg/kg (mam) 375 mg/kg (rat) 10 gm/kg (rbt)
Dermal	LD50	6400 mg/kg (mam) >10000 mg/kg (rbt)
Inhalative	LC50/1H	>5 mg/m ³ /1H (rat)
Irritation of skin	mild	12.5 mg/24H (rbt)
Irritation of eyes	mild	100 mg (rbt)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Subacute to chronic toxicity:

Absorption into the body may lead to the formation of methemoglobin, producing cyanosis, and marked fall in blood pressure leading to collapse, coma and possibly death. Onset may be delayed 2-4 hours or longer.

It has also been reported to cause dermatitis by contact and asthma by inhalation. Repeated exposure may cause change in weight and red blood

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cell count. Reproductive damage occurred in laboratory animals at a moderate dose level by ingestion. Mutational effects have occurred in several different species of animals as well. 4-Aminophenol is used as a photographic developer and in the manufacture of dyes.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:**Ecotoxicological effects:**

Remark: Very toxic for fish

General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Do not allow material to be released to the environment without proper governmental permits.

Very toxic for aquatic organisms

13 Disposal considerations**Product:****Recommendation**

Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information**DOT regulations:**

Hazard class:	6.1
Identification number:	UN2512
Packing group:	III
Proper shipping name (technical name):	AMINOPHENOLS
Label	6.1

Land transport ADR/RID (cross-border)

ADR/RID class:	6.1 (T1) Toxic substances
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Danger code (Kemler):	60
UN-Number:	2512
Packaging group:	III
Description of goods:	2512 AMINOPHENOLS

Maritime transport IMDG:

IMDG Class:	6.1
UN Number:	2512
Label	6.1
Packaging group:	III
Proper shipping name:	AMINOPHENOLS

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class:	6.1
UN/ID Number:	2512
Label	6.1
Packaging group:	III
Proper shipping name:	AMINOPHENOLS

15 Regulations**Product related hazard informations:****Hazard symbols:**

Xn Harmful

N Dangerous for the environment

Risk phrases:

20/22 Harmful by inhalation and if swallowed.

68 Possible risk of irreversible effects.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases:

28 After contact with skin, wash immediately with plenty of soap and water

36/37 Wear suitable protective clothing and gloves.

60 This material and its container must be disposed of as hazardous waste.

61 Avoid release to the environment. Refer to special instructions/ Safety data sheets

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

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Information about limitation of use:

For use only by technically qualified individuals.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department.**Contact:** Paul V. Connolly

USA