

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 12/19/2007

Reviewed on 11/09/2007

1 Identification of substance:**Product details:****Product name:** Phthalic anhydride**Stock number:** 41771**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#)**

Phthalic anhydride (CAS# 85-44-9), 100%

Identification number(s):**EINECS Number:** 201-607-5**EU Number:** 607-009-00-4**3 Hazards identification****Hazard description:**

Xn Harmful

Information pertaining to particular dangers for man and environment

R 22 Harmful if swallowed.

R 37/38 Irritating to respiratory system and skin.

R 41 Risk of serious damage to eyes.

R 42/43 May cause sensitization by inhalation and skin contact.

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

HEALTH	1
FIRE	1
REACTIVITY	1

Health (acute effects) = 1

Flammability = 1

Reactivity = 1

4 First aid measures**After inhalation**

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.

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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**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

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: 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.

Information about protection against explosions and fires:

Keep ignition sources away.

Protect against electrostatic charges.

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

No special requirements.

Information about storage in one common storage facility:

Do not store together with oxidizing and acidic materials.

Store away from reducing agents.

Do not store together with alkalies (caustic solutions).

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

USA

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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:

Phthalic anhydride

	mg/m3
ACGIH TLV	6
Belgium TWA	6.1
Denmark TWA	5
Finland TWA	2; 3-STEL
France TWA	6-STEL
Germany TWA	1 (inhalable fraction of the aerosol)
Hungary TWA	1; 2-STEL
Ireland TWA	6; 24-STEL; sensitizer
Netherlands TWA	1; 2-STEL
Poland TWA	1
Russia TWA	1-STEL (skin)
Sweden TWA	1; 2-STEL
Switzerland TWA	5; 10-STEL
United Kingdom TWA	4; 12-STEL; respiratory sensitizer
USA PEL	6

Components with limit values that require monitoring at the workplace:**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.

Avoid contact with the eyes and skin.

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:	Flakes
Color:	White
Odor:	Pungent

Change in condition

Melting point/Melting range:	131-133°C (268-271°F)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	284°C (543°F)

Flash point: 151°C (304°F)

Ignition temperature: 1058°C (1936°F)

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Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	1.7 Vol %
Upper:	10.4 Vol %
Vapor pressure:	Not determined
Density at 20°C (68°F):	1.53 g/cm ³
Solubility in / Miscibility with	
Water:	Slightly soluble
Alcohols:	Soluble

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:

Oxidizing agents

Acids

Bases

Reducing agents

Dangerous reactions Reacts with oxidizing agents

Dangerous products of decomposition: Carbon monoxide and carbon dioxide

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

Oral	LD50	800 mg/kg (cat) 1500 mg/kg (mus)
Inhalative	LC50/1H	>210 mg/m ³ /1H (rat)
Irritation of skin	mild	500 mg/24H (rbt)
Irritation of eyes	moderate	50 mg/24H (rbt)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization:

Sensitizing effect through inhalation is possible with prolonged exposure.

Sensitizing effect by skin contact is possible with prolonged exposure.

Subacute to chronic toxicity:

Phthalic anhydride causes irritation of the skin, eyes and mucous membranes. Occupational exposure may cause skin and respiratory sensitization.

Additional toxicological information:

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

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ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

12 Ecological information:**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

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

Not a hazardous material for transportation.

DOT regulations:

Hazard class: None

Land transport ADR/RID (cross-border)

ADR/RID class: None

Maritime transport IMDG:

IMDG Class: None

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: None

Transport/Additional information:

Not dangerous according to the above specifications.

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

Xn Harmful

Risk phrases:

22 Harmful if swallowed.

37/38 Irritating to respiratory system and skin.

41 Risk of serious damage to eyes.

42/43 May cause sensitization by inhalation and skin contact.

Safety phrases:

23 Do not breathe fumes

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

37/39 Wear suitable gloves and eye/face protection.

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46 If swallowed, seek medical advice immediately and show this container or label.

National regulations

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

Information about limitation of use:

For use only by technically qualified individuals.

This substance is subject to a Significant New Use Rule (SNUR) promulgated under Section 5(a)(2) of the Toxic Substances Control Act (TSCA). See 40 CFR 721. This product is being sold for research and development use only for the significant new use listed.

This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

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