

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/16/2009

Reviewed on 06/16/2009

1 Identification of substance:**Product details:****Product name:** o-Dianisidine dihydrochloride**Stock number:** A17175**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#)**

o-Dianisidine dihydrochloride (CAS# 20325-40-0): 100%

Identification number(s):**EINECS Number:** 243-737-5**Index number:** 612-037-00-5**3 Hazards identification****Hazard description:**

T Toxic

Information pertaining to particular dangers for man and environment

R 45 May cause cancer.

R 22 Also harmful if swallowed.

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

GHS label elements**Danger**

3.1/3 - Toxic if swallowed.

**Danger**

3.6/1A - May cause cancer.

Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use personal protective equipment as required.

Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see label).

Rinse mouth.

Storage:

Store locked up.

(Contd. on page 2)

USA

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/16/2009

Reviewed on 06/16/2009

Product name: o-Dianisidine dihydrochloride

(Contd. of page 1)

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

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.

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

Nitrogen oxides (NOx)

Hydrogen chloride (HCl)

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.

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.

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

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.

(Contd. on page 3)

USA

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/16/2009

Reviewed on 06/16/2009

Product name: o-Dianisidine dihydrochloride

(Contd. of page 2)

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

Check protective gloves prior to each use for their proper condition.

Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses**Body protection:** Protective work clothing.**9 Physical and chemical properties:****General Information**

Form:	Tablets
Color:	Off-white
	Grey
Odor:	Not determined

Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point:	Not applicable
---------------------	----------------

Ignition temperature:	Not determined
------------------------------	----------------

Decomposition temperature:	Not determined
-----------------------------------	----------------

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
-----------------	----------------

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**Dangerous reactions** No dangerous reactions known**Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

Nitrogen oxides

Hydrogen chloride (HCl)

11 Toxicological information**Acute toxicity:****Primary irritant effect:****on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Other information (about experimental toxicology):**

Tumorigenic effects have been observed on tests with laboratory animals.

Mutagenic effects have been observed on tests with bacteria.

Mutagenic effects have been observed on tests with laboratory animals.

Subacute to chronic toxicity:**Subacute to chronic toxicity:**

The Registry of Toxic Effects of Chemical Substances (RTECS) reports the following effects in laboratory animals:

Liver - changes in liver weight.

Liver - tumors.

Skin and Appendages - tumors.

Kidney, Ureter, Bladder - changes in bladder weight.

Blood - changes in serum composition (e.g. TP, bilirubin, cholesterol).

Blood - other changes.

(Contd. on page 4)

- USA

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/16/2009

Reviewed on 06/16/2009

Product name: o-Dianisidine dihydrochloride

(Contd. of page 3)

Nutritional and Gross Metabolic - weight loss or decreased weight gain.
 Sense Organs and Special Senses (Ear) - effect, not otherwise specified.
 Gastrointestinal - tumors.
 Brain and Coverings - tumors.
 Reproductive - Tumorigenic effects - testicular tumors.
 Reproductive - Tumorigenic effects - uterine tumors.
 Tumorigenic - carcinogenic by RTECS criteria.
 Tumorigenic - equivocal tumorigenic agent by RTECS criteria.

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.

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:**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.
 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:**

T Toxic

Risk phrases:

45 May cause cancer.

22 Also harmful if swallowed.

Safety phrases:

53 Avoid exposure - obtain special instructions before use.

45 In case of accident or if you feel unwell, seek medical advice immediately.

National regulations

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

This product contains a chemical known to the state of California to cause cancer or reproductive toxicity.

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

(Contd. on page 5)

USA

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/16/2009

Reviewed on 06/16/2009

Product name: o-Dianisidine dihydrochloride

(Contd. of page 4)

Information about limitation of use:

For use only by technically qualified individuals.

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:** Zachariah Holt**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

USA