



SOVEREIGN CHEMICAL COMPANY

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Material Safety Data Sheet

DUSANTOX 6PPD Pastille

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Manufacturer: DUSLO, A.S. 927 03 Sala Slovak Republic Phone 42 706 80 4507 Fax 42 706 80 3018	Emergency Contact : Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA) Duslo (in Slovakia): 00421/706/754112
Trade Name(s): Dusantox 6PPD Pastille	MSDS Number: 1174
Chemical Name: N-(1,3-dimethylbutyl) -N'-phenyl-p-phenylenediamine	Synonyms: 6PPD 1,4-benzenediamine, N-(1,3 dimethyl-butyl)-N'-phenyl
Prepared By: Sovereign Chemical Company	Date of Issue: May 13, 2009 (supersedes March 31, 2004) Revision Number: 9 Change(s): 3 year update

2. INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Percent</u>	<u>ACGIH (TLV/TWA)</u>	<u>OSHA (PEL/TWA)</u>
N-(1,3-dimethylbutyl) -N'-phenyl-p-phenylenediamine	793-24-8	97.0 minimum	NE	NE

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Purple-brown pastilles. Use appropriate personal protective equipment. During fire situations, irritating and toxic gases (CO₂, CO, NO_x) may be generated. Keep from entering storm or sanitary sewers, ground water, or soil. Avoid accumulation of dust and eliminate sources of ignition such as static electricity. Avoid prolonged or repeated contact with skin. May cause allergic skin reaction. Avoid breathing vapors. Hot material causes thermal burns to eyes and skin. Avoid high temperatures and contact with oxidants and acids.

HMIS Rating: Health – 1, Flammability – 1, Reactivity – 0, Personal Protection Equipment – B* (safety glasses, gloves).

*This is recommended personal protection equipment; final personal protection equipment should be determined by the plant safety department based on the actual conditions under which the product is used.

Potential Health Effects:

Eye: May cause eye irritation. Hot material causes thermal burns.

Skin Contact: May cause allergic skin reaction. Hot material causes thermal burns. Repeated contact can cause sensitization.

Ingestion: Slightly toxic. May be irritating to the mucous membranes of the gastro-intestinal tract.

Inhalation: May be irritating to the mucous membranes of the respiratory tract.

Chronic & Carcinogenicity: Prolonged contact with skin may cause allergic reaction. The product is not known to be carcinogenic.

4. FIRST AID MEASURES

Skin: Wash off immediately with plenty of soap and warm water and treat with protective cream. Seek medical advice in case of skin rash.

Eye: Rinse immediately with plenty of water.

Ingestion: Drink 0.5 liters of luke warm water with 10 tablets of medicinal charcoal and induce vomiting.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flash Point: 204°C (399°F) **COC LEL:** 10 g/m³ **UEL:** ND **Auto Ignition Temperature:** ND

Use water, CO₂, dry chemical or foam to extinguish fires. A self contained breathing apparatus (SCBA) operating in the positive pressure mode and full fire fighting protective clothing should be worn for combating fires. During a fire the product can form carbon monoxide and nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

Eliminate sources of ignition such as static electricity. Individuals involved in the cleanup should wear appropriate personal protective equipment. See Section 8. Unnecessary personnel should be kept clear of the area. Take up any spilled product by mechanical means (avoid dust formation) and place into sealed containers for proper disposal. Do not allow product to enter sewage or ground water. Dispose of waste materials including empty product bags or drums in accordance with Local, State and Federal regulations.

7. HANDLING AND STORAGE

Storage Conditions: Do not store at high temperatures or near acids, oxidants or foodstuffs. Store in closed containers in a dry environment

Handling: Good housekeeping and engineering practices should be employed to prevent the generation and accumulation of dusts. Eliminate sources of ignition such as static electricity. Wet mopping or vacuuming with a unit that contains a HEPA filter is recommended to clean up any dusts generated during processing or handling. Wear proper protective equipment (see section 8). Maximum permissible temperature for transporting is 35°C. Do not expose to sunlight for extended periods. Plant environment should include controls and equipment specified in Section 8.

8. EXPOSURE CONTROL - PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation should be provided. Design details for local exhaust ventilation systems may be found in the latest edition of "Industrial Ventilation: A Manual of Recommended Practices" published by the ACGIH Committee on Industrial Ventilation, P.O. Box 16153, Lansing, MI 48910. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer.

Respiratory Protection: Dusk mask is not required but is recommended especially if dusts are formed while handling material.

Eye Protection: Safety goggles.

Protection Gloves: Protective gloves should be worn.

Other Protection Items: Neoprene or nitrile rubber coated apron or other body covering may be required if there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse. A shower is recommended after handling product. Do not eat or smoke while handling this product. Avoid prolonged or repeated contact with skin. Avoid contact with material when it is in a hot liquid form.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State: Purple-brown pastilles	Melt Point: 44.0-50.0°C
Vapor Density (Air = 1): Not applicable	Octanol/Water Partition Coefficient: 59,000 - 34,000
Vapor Pressure: Not applicable	Evaporation Rate BuOAC = 1: Not applicable
Odor: Aromatic	Specific Gravity: 1.056 g/ m ³
% Volatile by Volume: Not applicable	Bulk Density: 580-610 kg/m ³
% Solubility (H₂O) : Very low solubility in water 0.002% weight at 20°C	Boiling Point: 163-165°C
Other: Soluble in acetone, alcohols and aromatics.	pH: Not applicable

10. STABILITY AND REACTIVITY

Stability /Polymerization: Hazardous polymerization does not occur. Thermally stable up to 300°C.

Incompatibility (conditions to avoid): High temperatures and contact with acids and oxidants. Moisture will weaken product bag. Avoid contact with foodstuffs.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and nitrogen oxides.

Special Sensitivity: None

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (rats): LD50 >7000mg/kg, slightly toxic

Acute dermal toxicity (rats): LD50 >6000 mg/kg, non-toxic

Mutagenicity test (Ames test): negative

Eye irritation (rabbit, FHSA): 1.2 on a score of 110.0, slightly irritating.

Skin irritation (rabbit, FHSA): 0.0 on a score of 8.0, nonirritating, but, repeated contact with skin can cause sensitization.

Carcinogenicity or mutagenicity of animals was not demonstrated.

12. ECOLOGICAL INFORMATION

96 hour LC 50 Trout: 0.14 mg/l, highly toxic

96 hour LC 50 Bluegill: 0.4 mg/l, highly toxic

96 hour LC 50 Flathead Minnow: 0.45 mg/l, highly toxic

48 hour LC 50 Daphnia: 0.82 mg/l, moderately toxic

96 hour EC 50 Algae, Cell Count: 0.6 mg/l, highly toxic

Biological decomposition: Not decomposable

Behavior in wastewater purifier: No information on toxicity in water phase due to low solubility in water.

13. DISPOSAL CONSIDERATIONS

When discarded, Dusantox 6PPD is not a "hazardous waste" as that term is defined in 40 CFR 261, Identification and Listing of Hazardous Waste". Burn in an approved incinerator or dispose in approved chemical landfill in accordance with all applicable local, state and federal laws and regulations.

14. TRANSPORTATION INFORMATION

US DOT

DOT Proper Shipping Name: Not applicable.

DOT Hazard Class/I.D. No.: Not applicable

DOT Label: Not applicable

DOT Hazardous Substances: Not applicable

U.S. Surface Freight Classification: Rubber Preservative, N.O.I.B.N.

ICAO/IATA: Not regulated.

RID/ADR: Class 9 Packaging Group III, UN # Environmentally Hazardous Substance, Solid N. O. S

IMDG: Not regulated.

TDG: Not regulated.

The Product is considered Environmentally Hazardous for shipments to and from Europe. Class 9, Pkg. group III, UN # 3077, Environmentally Hazardous Substance, Solid, N. O. S

15. REGULATORY INFORMATION

CERCAL/RCRA: No reportable quantities or threshold planning quantities.

TSCA: All ingredients listed on the TSCA inventory list.

SARA Title III, Section 313: Not listed.

WHMIS, NRP, IARC, SUBPART Z, Proposition 54 (CA), Clean Air: Not listed.

OSHA Hazard Communication Standard (29 CFR 1910.1200): This substance is identified as a hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Canadian DSL: All ingredients are listed.

Characteristic Labeling:

R 22 – Harmful if swallowed.

R 36/37/38 – Irritating to eyes, respiratory system and skin.

R 43 – May cause sensitization by skin contact.

S 7/8 - Keep container tightly closed and dry.

S 28.2 – After contact with skin, wash immediately with plenty of water and soap.

S 47 – Do not expose to direct solar radiation.

16. OTHER INFORMATION

NE = Not Established

NA = Not Applicable

ND = Not Determined

Information contained in this MSDS sheet have been gathered from the following documents:

Chemical REG-A-DEX, J.J.Keller, March 2000

WHMIS Compliance Manual, Carswell, April 2000

Transportation of Dangerous Good, J.J.Keller, February 2000

Code of Federal Regulations, Transportation, 49 CFR Parts 100 to 185, October 1998

NIOSH Pocket Guide to Chemical Hazards, June 1997

ACGIH Threshold Limit Values, 1999

HMS Implementation Manual, 2nd Edition

Toxicity and Safe Handling of Rubber Chemicals, BRMA, 3rd Edition

ChemCheck Handbook, Specialty Technical Publishers, March 2000

IARC WEB site

NTP WEB site

IMPORTANT SAFETY NOTICE: The information in the Material Safety Data Sheet relates only to the specific material(s) described herein and does not relate to use in combination with any other material or substance or in any process. We believe that the information contained herein is current as of the date of issue of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of this product are not within the control of Sovereign Chemical Company, it is the user's obligation to determine the conditions of safe use of the product.

Users of this product should study this Material Safety Data Sheet and become aware of the product hazards and safety information before using the product. Users should also notify their employees, agents, and contractors of the information on this Material Safety Data Sheet and any product hazards and safety information in order to provide safe use of this product.