



Material Safety Data Sheet

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SANTOFLEX® 134PD

MSDS NO. FLXP0031

Chemical Name: N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine N-(1,4-Dimethylpentyl)-N'-phenyl-p-phenylenediamine Blend

Synonyms: Blend of Santoflex 13; Permanax 6PPD; 1,4-Benzenediamine, N(1,3-dimethylbutyl)-N'-phenyl- Santoflex 14; 7PPD; 1,4-Benzenediamine, N-(1,4-dimethylpentyl)-N'-phenyl-

Use: Antidegradant

Manufactured By: Flexsys America L.P. 260 Springside Drive Akron OH 44333-2433 USA

Emergency Telephone: **CHEMTREC:** 1-800-424-9300 [TOLL FREE - USA and Territories]
703-527-3887 [ELSEWHERE - Collect Calls Accepted]
CANUTEC: 613-996-6666 [Canada]
SETIQ: 91-800-00-214 [Mexico]

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2. HAZARDS IDENTIFICATION

Emergency Overview: WARNING! Avoid contact with skin and eyes. May irritate the eyes. May irritate the skin.

Eye Contact: May irritate eyes. Mild Eye Irritation: signs/symptoms can include redness, swelling, pain and tearing.

Skin Contact: Causes mild skin irritation. May cause a rash and itching of the skin. May cause an allergic skin reaction. Contact with skin causes unsightly stains.

Inhalation: Vapors given off by heated product may be harmful or irritating.

Ingestion: May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation. Illness may occur after a single swallowing of relatively large quantities of this material.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
N-(1,4-Dimethylpentyl)-N'-phenyl-p-phenylenediamine	3081-01-4	63 - 67
N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	31 - 34

4. FIRST AID MEASURES

In Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

On Skin: Remove contaminated clothing. Wash skin with water, using soap if available. Remove contaminated shoes and discard. If irritation persists or signs of toxicity occur, seek medical attention. NOTE: This material may stain or discolor the skin.

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4. FIRST AID MEASURES

Inhaled:	Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
Swallowed:	Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. Never give fluids or induce vomiting if the victim is unconscious or having convulsions.
Notes To Physician:	No specific antidote. Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C):	393°F / 200°C
Flash Point Method:	Cleveland Open Cup
Autoignition Temp. (°F/C):	Not determined.
Lower Explosion Limit (LEL):	Not determined.
Upper Explosion Limit (UEL):	Not determined.
Extinguishing Media:	Use water fog, carbon dioxide, foam or dry chemical.
Special Exposure Hazards:	Sprinkler and/or deluge systems recommended for bulk storage areas. Closed containers may explode in fire. Use water spray to cool fire exposed surfaces. Fight fire from a safe distance and from a protected location. Do not allow runoff to enter waterways.
Special Protective Equipment:	Fire fighters should wear full impervious protective clothing, including self-contained breathing equipment.
Unusual Fire/Explosion Hazards:	Toxic emissions may result if product is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures:	Wear impervious personal protective equipment to protect eyes, skin and clothing. Absorb liquid with inert materials. Scoop, sweep or shovel solids and place in a closed container for proper disposal.
Procedure for Cleaning/Absorption:	Isolate spill and stop leak where safe. Contain liquid spills with sand or other inert materials. Scoop up and remove solids. Ventilate area. Do NOT spread spilled product with water. Spilled material may stain and discolor surfaces.
CERCLA Reportable Quantity (RQ):	Not Applicable

7. HANDLING AND STORAGE

Handling:	Avoid contact with skin and eyes. Use only in a well ventilated area. Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material. Reclose containers of unused product. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Do not reuse this container.
Storage:	Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Storage at temperatures above 75°C is NOT recommended.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection:	Wear safety glasses or goggles to protect against exposure. Wear eye protection appropriate to handling activities.
Skin Protection:	Normal work coveralls. Launder contaminated clothing before reuse. Discard contaminated shoes. This material can stain and discolor skin.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Gloves:	Use gloves as a standard industrial handling procedure. All cleanable impervious glove types are acceptable. Consult glove manufacturer for best type of glove for specific tasks.
Respiratory Protection:	Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.
Ventilation:	Use only in well ventilated area. General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.
Airborne Exposure Limits:	Not Determined.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark oily liquid.
Odor:	AROMATIC
pH:	N/A
Specific Gravity:	1.0 @ 45°C
Density:	Unknown
Bulk Density:	Not Determined
Melting Point (°F/C):	Not determined.
Boiling Point (°F/C):	Not determined.
Vapor Pressure:	Not Determined
Vapor Density (Air=1):	Not Determined
% Volatile by Volume:	0.5-1.0%
Solubility in Water:	INSOLUBLE
Other Solubility:	Soluble in: Organic liquids, including fats and oils Benzene Naphtha Alcohol
Viscosity:	13-17 cSt @75°C
Other Data:	Ketone content: <0.1%
Molecular Weight:	Mixture
Molecular Formula:	Mixture

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen. Contact with air. Long-term storage at temperatures above 75°C is NOT recommended.
Materials to Avoid:	Strong oxidizing agents. Contact with air.
Hazardous Decomposition Products:	Carbon monoxide. Oxides of nitrogen.
Additional Guidelines:	Not Applicable

11. TOXICOLOGICAL INFORMATION

Acute Oral LD50 (mg/kg):	>2100 mg/kg
Acute Dermal LD50 (mg/kg):	>5010 mg/kg
Acute Inhalation LC50 (mg/l):	>0.2 mg/l
Target Organs / Principle Routes of Exposure:	Dermal - skin. Inhalation.
Ingestion:	May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation. Illness may occur after a single swallowing of relatively large quantities of this material.
Skin Contact:	Causes mild skin irritation. May cause a rash and itching of the skin. May cause an allergic skin reaction. Contact with skin causes unsightly stains.

11. TOXICOLOGICAL INFORMATION

Inhalation:	Vapors given off by heated product may be harmful or irritating.
Eye Contact:	May irritate eyes. Mild Eye Irritation: signs/symptoms can include redness, swelling, pain and tearing.
Aggravated Conditions:	Eye, skin, respiratory, blood, liver and/or kidney ailments.
Carcinogenicity Comment:	This product, or one of its ingredients present at 0.1% or more, is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC or OSHA. Carcinogenic: Category 3
Other Information:	Decomposition products and fumes from vulcanization and cross-linking may cause eye, skin and respiratory sensitization. May be a skin sensitizer. Fumes from processing this material may irritate the eyes, skin, or respiratory tract. Use local ventilation above processing equipment. Avoid inhalation, skin, or eye contact with processing fumes. Wash thoroughly if exposed to processing fumes.
Primary Irritation Effect:	Slightly irritating
Carcinogenicity:	Negative in standard tests using bacteria and/or yeast cells.
Genotoxicity:	None
Reproductive/Developmental Toxicity:	No evidence of teratogenicity in animal studies using rats, mice and/or hamsters. No birth defects observed in several animal studies.

12. ECOLOGICAL INFORMATION

Acute Fish Toxicity:	96Hr LC50 - Various species: Highly Toxic (<1.0 mg/l)
Acute Crustaceans Toxicity:	48Hr EC50 Daphnia Magna = Highly Toxic (<1.0 mg/l)
Acute Algae Toxicity:	96Hr EC50 Algae = Highly Toxic (<1.0 mg/l)
Octanol/Water Coefficient:	Not Determined.
Chemical Fate Information:	Not Determined.
Other Information:	Not Available

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method:	This product, if disposed as received, is a non-hazardous waste. Bury in a licensed landfill or burn in an approved incinerator according to federal, state, and local regulations. If not contaminated, reuse product.
Contaminated Packaging:	If empty container retains product residues, all label precautions must be observed. Transport with all closures in place. Return for reuse or dispose according to national or local regulations. Do NOT reuse container.

14. TRANSPORT INFORMATION

DOT:	Not Regulated
DOT Reportable Quantity (lbs):	None
ICAO/IATA:	See DOT
IMDG:	See DOT
Marine Pollutant:	No
TDG (Canada):	See DOT

Remarks: None

15. REGULATORY INFORMATION

Worldwide Inventory Status

USA (TSCA):	Listed
Canada (DSL):	Listed
Canada (NDSL):	Not Applicable. Listed on the DSL.
European Union (EINECS/ELINCS):	Listed
Japan (ENCS):	Listed

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15. REGULATORY INFORMATION

Korea (ECL): Listed
Australia (AICS): Listed
New Zealand (NZ): Listed
Phillipines (PICCS): Listed
China (CLECS): Listed.

US Regulatory Rules

SARA Section 302: Not Applicable / None
SARA 311/312 Hazard Categories: Immediate
SARA 313 Chemical: Not Applicable / None
RCRA Status: Not a RCRA waste.

Other Regulations:

California Proposition 65: NONE
New Jersey Right-to-Know List: Not Applicable.
Pennsylvania Right to Know List: Not Applicable.
Florida Right to Know: Not Applicable.
Minnesota Right to Know: N/A
Massachusetts Right to Know Law: Not Applicable.

FDA Status 21 CFR: Not Regulated For Use in food contact applications under 21 CFR.

Canadian Regulations

WHMIS Hazard Class: NON-CONTROLLED
NPRI: Not Listed. [Canada]

16. OTHER INFORMATION

Hazard Rating Systems:

HMIS Classification: HEALTH 1, FLAMMABILITY 1, REACTIVITY 0
NFPA Rating: HEALTH 1, FLAMMABILITY 1, REACTIVITY 0

The following has been revised since the last issue of this MSDS: New MSDS format.

Additional Information: Not Applicable

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END OF MSDS