MSDS Material Safety Data Sheet
The Penray Companies Inc

PENRAY NON-CHLORINATED BRAKE CLEANER--4520

MSDS Number: 4520
Revision Date: 11/30/2012

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer
The Penray Companies Inc
Wheeling, IL 60090

Contact: EH&S Department
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Product Name: PENRAY NON-CHLORINATED BRAKE CLEANER--4520
Revision Date: 11/30/2012
Version: 3
MSDS Number: 4520
Common Name: AEROSOL BRAKE CLEANER CONTAINING ORGANIC SOLVENTS

EMERGENCY CONTACT TELEPHONE NUMBERS 24hrs/7

Adverse Medical: 1-800-752-7869 (24hr poison control call center)

Transport Response:
CHEMTREC 1-800-424-9300.
CHEMTREC International 703-527-3887 (collect)
2 HAZARDS IDENTIFICATION

Route of Entry:
- Skin absorption and inhalation

Target Organs:
- Lungs, kidneys, liver and nervous system.

Inhalation:
- Respiratory irritation and dizziness

Skin Contact:
- Prolonged contact with skin can cause irritation. Repeated skin contact may cause persistent irritation and dermatitis

Eye Contact:
- Will cause irritation upon contact.

Ingestion:
- Product may cause discomfort, nausea, vomiting and diarrhea.

CARCINOGENICITY:
- Product is not considered a carcinogen by OSHA, NTP or IARC.

MEDICAL CONDITIONS:
- Pre-existing eye or skin conditions may be aggravated by over-exposure to this product.

NFPA:
- Health = 2, Fire = 3, Reactivity = 0

HMIS:
- H*2/F4/P0

3 HAZARDS IDENTIFICATION

Ingredients:

<table>
<thead>
<tr>
<th>Can #</th>
<th>Percentage</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>142-82-5</td>
<td>60-100%</td>
<td>Heptane</td>
</tr>
<tr>
<td>64-17-5</td>
<td>7-13%</td>
<td>Ethanol</td>
</tr>
<tr>
<td>67-63-0</td>
<td>0.1-1%</td>
<td>Isopropanol</td>
</tr>
<tr>
<td>124-38-9</td>
<td>3-7%</td>
<td>Carbon dioxide</td>
</tr>
</tbody>
</table>

4 FIRST AID MEASURES

Inhalation:
- Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention.

Skin Contact:
- Wash area with soap and water. Seek medical attention if irritation persists

Eye Contact:
- Immediately flush eyes with plenty of water for 15 minutes. Seek medical attention.

Ingestion:
- Dilute with fluids (e.g. water, milk, juice, etc.). Bring to the attention of a physician. Do not induce vomiting.
FIRE FIGHTING MEASURES

Flash Point: 20 - 57 F
Flash Point Method: TCC

EXTINGUISHING MEDIA: Carbon Dioxide (CO2) Dry Chemical, Foam.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and can collect in low areas.
FIRE FIGHTING INSTRUCTIONS: Containers can build up pressure if exposed to fire. Containers should be cooled with water supply.
FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full face piece operated in positive pressure mode.

ACCIDENTAL RELEASE MEASURES

Spills not likely due to nature of product. If material is spilled, follow proper clean up procedures.

Personal Precautions:
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental Precautions:
Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

Methods for Containment:
Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rag, etc).

Methods for Cleanup:
Neutralize remaining traces of material and flush with water followed by liberal covering with sodium bicarbonate. All clean-up material should be removed and placed in approved containers for disposal. Rinse water may be disposed of down a sanitary sewer system if authorized by the local municipality.

Other Information:
Eliminate all ignition sources. Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed.
Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

HANDLING AND STORAGE

Handling Precautions: Wash thoroughly after handling. Do not get into eyes, on skin or on clothing. Do not smoke while using this product. Do not use near excessive heat, sparks, or open flame.

Storage Requirements: Store in clean, dry locations away from excessive heat. Store in areas designated for the storage of Level III aerosols according to NFPA 30B (Manufacturing and Storage of Aerosol Products.)
EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: 
- Eye wash station and safety shower.
- Strong general ventilation or local exhaust.

Personal Protective Equip: 
- HMIS PP, X | Consult your supervisor for special instructions
- EYE: Chemical splash goggles with indirect or no ventilation.
- SKIN: Chemical resistant gloves, such as nitrile.
- RESPIRATORY: Organic vapor air purifying respirator if vapors are a nuisance or if the concentrations are above PEL or TLV.

Never eat, drink or smoke in work area.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless
Physical State: Aerosol
Spec Grav./Density: 0.820-0.825
Boiling Point: BT 220-440 F
Vapor Pressure: BT 44-125 mmHG

Odor: Slight alcohol odor
Solubility: Not soluble in water
Vapor Density: BT 1-1.6
VOC: 100 %

STABILITY AND REACTIVITY

Stability: Material is stable.
Conditions to Avoid: Excessive heat and open flame.
Materials to Avoid: Strong oxidizing agents.
Hazardous Decomposition: Carbon Monoxide and Carbon Dioxide
Hazardous Polymerization: Cannot occur.

TOXICOLOGICAL INFORMATION

No Data

ECOLOGICAL INFORMATION

No data.
DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable state, federal and local regulations. As a waste, this product in its raw form DOES MEET the criteria of a hazardous waste as defined by RCRA (40CFR361). As a waste this product can be fuel blended at a fuel blending facility.
Dispose of in accordance with all applicable state, federal and local regulations.

TRANSPORT INFORMATION

DOMESTIC:
CONSUMER COMMODITY ORM-D

EXPORT:
AEROSOL DISPENSERS, CLASS 2.1 UN1950, IMCO 9.0, PAGE 9022

REGULATORY INFORMATION

*Heptane (142825 60-100%) MASS, OSHAWAC, PA, TSCA, TXAIR
*Ethanol (64175 7-13%) MASS, OSHAWAC, PA, TSCA, TXAIR
*Isopropanol (67630 0.1-1%) MASS, NJHS, NRC, OSHAWAC, PA, SARA313, TSCA, TXAIR
*Carbon dioxide (124389 3-7%) MASS, OSHAWAC, PA, TSCA, TXAIR

REGULATORY KEY DESCRIPTIONS

MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level

NJHS = NJ Right-to-Know Hazardous Substances
NRC = Nationally Recognized Carcinogens
SARA313 = SARA 313 Title III Toxic Chemicals
CALIFORNIA PROPOSITION 65: This product does not contain a chemical known to the State of California to cause cancer, birth defects and other reproductive harm.

Notes:
NG=NOT GIVEN
<=LESS THAN
>=GREATER THAN

USERS RESPONSIBILITY: This MSDS provides environmental, health and safety information. This product is to be used in applications consistent with our product literature and container label. Individuals handling this product should be informed of the recommended safety precautions and have access to this MSDS. Please contact your local sales representative or our EH&S Department for further information.

Disclaimer:
Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

This information is given in good faith and based on our current knowledge of the product.

END MSDS