



# SAFETY DATA SHEET

## 1. Identification

**Product number** 6001, 6005, 6012, 6032, 6055  
**Product identifier** **PENRAY SUPER HEAVY DUTY DOT 3 BRAKE FLUID**  
**Revision date** 09-13-2018  
**Company information** The Penray Companies, Inc.  
440 Denniston Ct.  
Wheeling, IL 60090 United States  
**Company phone** (800) 373-6729  
**Emergency telephone US** 1-800-424-9300  
**Emergency telephone outside US** 1-703-527-3887  
**Version #** 03  
**Supersedes date** 08-17-2018  
**Recommended use** Cleaner  
**Recommended restrictions** None known.

## 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Reproductive toxicity Category 2  
Specific target organ toxicity, repeated exposure Category 2  
**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Warning  
**Hazard statement** Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.  
**Precautionary statement**  
**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wear protective gloves/protective clothing/eye protection/face protection.  
**Response** If exposed or concerned: Get medical advice/attention.  
**Storage** Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Diethylene Glycol Monobutyl Ether		112-34-5	2.5 - 10
Diethylene Glycol n-Butyl Ether		111-46-6	2.5 - 10
Polyethylene Glycol		25322-68-3	2.5 - 10

Chemical name	Common name and synonyms	CAS number	%
Diethylene Glycol Monomethyl Ether		111-77-3	0.1 - 1
Other components below reportable levels			90 - 100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Use water spray to reduce vapors or divert vapor cloud drift.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.

#### US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Diethylene Glycol n-Butyl Ether (CAS 111-46-6)	TWA	10 mg/m <sup>3</sup>	
Polyethylene Glycol (CAS 25322-68-3)	TWA	10 mg/m <sup>3</sup>	Particulate.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Chemical respirator with organic vapor cartridge and full facepiece.

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

##### Other

Use of an impervious apron is recommended.

#### Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Liquid.

#### Form

Liquid.

#### Color

Not available.

### Odor

Not available.

### Odor threshold

Not available.

### pH

8.6

### Melting point/freezing point

-59.8 °F (-51 °C) Supplier estimated / < -58 °F (< -50 °C) Supplier

### Initial boiling point and boiling range

500 °F (260 °C) 760 mmHg ASTM E1719

### Flash point

280.4 °F (138.0 °C) Pensky-Martens Closed Cup Supplier

### Evaporation rate

Not available.

### Flammability (solid, gas)

Not applicable.

### Upper/lower flammability or explosive limits

#### Flammability limit - lower (%)

Not available.

#### Flammability limit - upper (%)

Not available.

#### Explosive limit - lower (%)

Not available.

#### Explosive limit - upper (%)

Not available.

### Vapor pressure

< 0.01 mm Hg @ 20C estimated

### Vapor density

Not available.

<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	590 °F (310 °C) supplier
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Combustible IIIB estimated
<b>Heat of combustion (NFPA 30B)</b>	1.65 kJ/g estimated
<b>Kinematic viscosity</b>	990 cSt @-40 °C ISO 3104
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	25.79 % estimated
<b>Specific gravity</b>	1.06 supplier estimated
<b>VOC (Weight %)</b>	25.79 % estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

#### Acute toxicity

Components	Species	Test Results
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2764 mg/kg, 24 Hours
	Rat	2021 mg/kg
<b>Inhalation</b>		
LC50	Rat	74 mg/l/4h
<b>Oral</b>		
LD100	Rabbit	4000 mg/kg
LD50	Guinea pig	2000 mg/kg
	Mouse	2410 mg/kg

Components	Species	Test Results
	Rabbit	2500 - 3000 mg/kg
	Rat	7291 mg/kg
Diethylene Glycol Monomethyl Ether (CAS 111-77-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Guinea pig	8000 mg/kg, Days
	Rabbit	9404 mg/kg, 24 Hours
		8980 ml/kg
<b>Oral</b>		
LD100	Rabbit	10000 mg/kg
LD50	Cat	> 4080 mg/kg
	Guinea pig	4160 mg/kg
	Mouse	7128 mg/kg
	Rabbit	> 4000 mg/kg
	Rat	7128 mg/kg
		6700 ml/kg

Diethylene Glycol n-Butyl Ether (CAS 111-46-6)

**Acute**

**Oral**

LD50	Human	1120 mg/kg
	Rat	16500 mg/kg

Polyethylene Glycol (CAS 25322-68-3)

**Acute**

**Oral**

LD50	Rat	4300 mg/kg
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\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	2803 mg/L, 48 Hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	1300 mg/l, 96 hours
		Fish	1304 mg/L, 96 Hours
Diethylene Glycol Monomethyl Ether (CAS 111-77-3)			
<b>Aquatic</b>			
Algae	IC50	Algae	500.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia	500.0001 mg/L, 48 Hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	7500 mg/l, 96 hours
Diethylene Glycol n-Butyl Ether (CAS 111-46-6)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	84000 mg/L, 48 Hours
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> )	> 32000 mg/l, 96 hours
Polyethylene Glycol (CAS 25322-68-3)			
<b>Aquatic</b>			
Fish	LC50	Atlantic salmon ( <i>Salmo salar</i> )	> 1000 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

### Bioaccumulative potential

#### Partition coefficient n-octanol / water (log K<sub>ow</sub>)

Diethylene Glycol Monobutyl Ether 0.56

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. Massachusetts RTK - Substance List**

Diethylene Glycol Monomethyl Ether (CAS 111-77-3)

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Diethylene Glycol Monomethyl Ether (CAS 111-77-3)

Diethylene Glycol n-Butyl Ether (CAS 111-46-6)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

Ethylene Glycol Monomethyl Ether (CAS 109-86-4) Listed: January 1, 1989

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

Ethylene Glycol Monomethyl Ether (CAS 109-86-4) Listed: January 1, 1989

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 08-09-2018

**Revision date** 09-13-2018

**Version #** 03

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.