



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Hercules PT4</b>	
<b>Other means of identification</b>		
<b>Product code</b>	7307E	
<b>Synonyms</b>	Part Numbers: 137501, 137503, 137504, 137507, 137509	
<b>Recommended use</b>	Flow improver for drainage and plumbing systems	
<b>Recommended restrictions</b>	None known.	
	<b>Manufacturer</b>	<b>Distributor</b>
<b>Company Name</b>	HCC Holdings, Inc. an Oatey Affiliate	Oatey Canada Supply Chain Services Co.
<b>Address</b>	4700 West 160th Street Cleveland, OH 44135	145 Walker Drive Brampton, ON L6T 5P5, Canada
<b>Telephone</b>	216-267-7100	
<b>E-mail</b>	info@oatey.com	
<b>Transport Emergency</b>	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)	
<b>Emergency First Aid</b>	1-877-740-5015	
<b>Contact person</b>	MSDS Coordinator	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 3
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Aspiration hazard	Category 1
<b>Environmental hazards</b>	Not classified.	
<b>Label elements</b>		

<b>Signal word</b>	Danger
<b>Hazard statement</b>	Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing mist or vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
<b>Storage</b>	Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	None known.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Terpene hydrocarbons	68956-56-9	40-50
D-LIMONENE	5989-27-5	5-15
TRIETHANOLAMINE	102-71-6	5-15
DODECYLBENZENESULFONIC ACID	27176-87-0	5-10
Alcohols, C9-11, ethoxylated	68439-46-3	1-5
POTASSIUM CARBONATE	584-08-7	1-5

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<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>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. 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>	In case of fire and/or explosion do not breathe fumes. 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>	Flammable liquid and vapor.

### 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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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. Avoid discharge into drains, water courses or onto the ground.

**Environmental precautions**

**7. Handling and storage**

**Precautions for safe handling**

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not get in eyes, on skin, or on clothing. Avoid breathing mist or vapor. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. 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
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	3.1 mg/m3
		0.5 ppm

## Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m <sup>3</sup>
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	
<b>Appropriate engineering controls</b>	Explosion-proof general and local exhaust ventilation. 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. Eye wash facilities and emergency shower must be available when handling this product.	
<b>Individual protection measures, such as personal protective equipment</b>		
<b>Eye/face protection</b>	Face shield is recommended. Wear safety glasses with side shields (or goggles).	
<b>Skin protection</b>		
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.	
<b>Other</b>	Wear chemical protective equipment that is specifically recommended by the manufacturer. Use of an impervious apron is recommended.	
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.	
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.	
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. 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. Contaminated work clothing should not be allowed out of the workplace.	

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Translucent liquid.
<b>Color</b>	Off-white.
<b>Odor</b>	Citrus
<b>Odor threshold</b>	Not available.
<b>pH</b>	8
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	219.2 °F (104 °C)
<b>Flash point</b>	130.0 °F (54.4 °C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.

<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	0.95
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.

<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	20 - 40 cP
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>VOC</b>	53 % by weight 500 g/L

## 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>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Peroxides. Phenols.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.  Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. May cause an allergic skin reaction.

Components	Species	Test Results
Alcohols, C9-11, ethoxylated (CAS 68439-46-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2 g/kg
DODECYLBENZENESULFONIC ACID (CAS 27176-87-0)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	650 mg/kg
POTASSIUM CARBONATE (CAS 584-08-7)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 4.6 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	1870 mg/kg

Components	Species	Test Results
TRIETHANOLAMINE (CAS 102-71-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 20000 mg/kg
<i>Oral</i>		
LD50	Rat	8 g/kg

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

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Canada - Alberta OELs: Irritant**

TRIETHANOLAMINE (CAS 102-71-6) Irritant

**Canada - Quebec OELs: Sensitizer**

TRIETHANOLAMINE (CAS 102-71-6) Sensitizer.

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** May cause an allergic skin reaction.

**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**

D-LIMONENE (CAS 5989-27-5) 3 Not classifiable as to carcinogenicity to humans.

TRIETHANOLAMINE (CAS 102-71-6) 3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

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

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

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Chronic effects** May be harmful if absorbed through skin. Prolonged inhalation may be harmful.

Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

## 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	
DODECYLBENZENESULFONIC ACID (CAS 27176-87-0)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	11 - 23 mg/l, 48 hours
Fish	LC50	Rainbow Trout	10.8 mg/l, 96 hours
TRIETHANOLAMINE (CAS 102-71-6)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	2038 mg/l, 24 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 Kow)**

D-LIMONENE (CAS 5989-27-5) 4.232

TRIETHANOLAMINE (CAS 102-71-6) -1

**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

**TDG**  
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

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Controlled Drugs and Substances Act**

Not regulated.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**International regulations**

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto protocol**

Not applicable.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies 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

**Issue date** 20-June-2016

**Revision date** -

**Version #** 01

**References** ACGIH  
EPA: AQUIRE database  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents

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