

**PTC**

Version 8.2      Revision Date: 10/11/2018      SDS Number: 118051-00015      Date of last issue: 10/01/2018  
Date of first issue: 05/18/2015

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**SECTION 1. IDENTIFICATION**

Product name : PTC  
SDS-Identcode : 308G

**Manufacturer or supplier's details**

Company name of supplier : Bestolife Corporation  
Address : 2777 N. Stemmons Frwy Ste 1800  
Dallas TX 75207,  
Telephone : 855-243-9164/972-865-8961  
Telefax : 214-631-3047  
Emergency telephone : CHEMTREC U.S.: 800-424-9300, International 703-527-3887  
(24-hours/7 days)  
E-mail address : www.bestolife.com

**Recommended use of the chemical and restrictions on use**

Recommended use : Industrial use  
Thread Compound (Pipe Dope) and Jacking grease for use in  
Offshore industries  
Mining, (without offshore industries)  
Restrictions on use : Do not use on oxygen lines or in oxygen enriched atmos-  
pheres.

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**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with 29 CFR 1910.1200**

Skin sensitization : Category 1

**GHS label elements**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H317 May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P272 Contaminated work clothing must not be allowed out of  
the workplace.  
P280 Wear protective gloves.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/  
attention.  
P363 Wash contaminated clothing before reuse.

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### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	>= 50 - < 70
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 30 - < 50
Graphite	7782-42-5	>= 10 - < 20
Dilithium azelate	38900-29-7	>= 5 - < 10
Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1	>= 1 - < 5
Talc	14807-96-6	>= 1 - < 5
Antimony, dialkyl dithiocarbamate	15890-25-2	>= 1 - < 5
2,5-Bis(octyldithio)-1,3,4-thiadiazole	13539-13-4	>= 0.1 - < 1
Diocetyl disulphide	822-27-5	>= 0.1 - < 1
Benzenesulphonic acid, propenated, calcium salts, overbased	68610-84-4	>= 0.1 - < 1
Quartz	14808-60-7	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.  
Remove contaminated clothing and shoes.  
Get medical attention.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.
- In case of eye contact : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and : May cause an allergic skin reaction.

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delayed  
Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Notes to physician : Treat symptomatically and supportively.

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### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Metal oxides  
Fluorine compounds  
Nitrogen oxides (NO<sub>x</sub>)  
Sulfur oxides

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions : Discharge into the environment must be avoided.  
Prevent further leakage or spillage if safe to do so.  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

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### SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE

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- Advice on safe handling : CONTROLS/PERSONAL PROTECTION section.  
 : Do not get on skin or clothing.  
 : Do not swallow.  
 : Avoid contact with eyes.  
 : Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
 : Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled containers.  
 : Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:  
 : Strong oxidizing agents

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
Graphite	7782-42-5	ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
		TWA (Respirable)	2.5 mg/m <sup>3</sup>	NIOSH REL
		TWA (Respirable fraction)	2 mg/m <sup>3</sup>	ACGIH
		TWA (Dust)	15 Million particles per cubic foot	OSHA Z-3
		TWA	0.5 mg/m <sup>3</sup> (antimony)	OSHA Z-1
		TWA	0.5 mg/m <sup>3</sup> (antimony)	ACGIH
Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1	TWA	0.5 mg/m <sup>3</sup> (antimony)	ACGIH
		TWA	0.5 mg/m <sup>3</sup> (antimony)	NIOSH REL
		TWA	0.5 mg/m <sup>3</sup> (antimony)	NIOSH REL
Talc	14807-96-6	TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable)	2 mg/m <sup>3</sup>	NIOSH REL
		TWA (Respirable frac-	2 mg/m <sup>3</sup>	ACGIH

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Antimony, dialkyl dithiocarbamate	15890-25-2	tion)	0.5 mg/m <sup>3</sup> (antimony)	OSHA Z-1
		TWA	0.5 mg/m <sup>3</sup> (antimony)	ACGIH
		TWA	0.5 mg/m <sup>3</sup> (antimony)	NIOSH REL
Quartz	14808-60-7	TWA (Respirable dust)	0.05 mg/m <sup>3</sup>	OSHA Z-1
		TWA (respirable)	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO <sub>2</sub> +5	OSHA Z-3
		TWA (Respirable fraction)	0.025 mg/m <sup>3</sup> (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m <sup>3</sup> (Silica)	NIOSH REL

**These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.**

Quartz

**Engineering measures** : Minimize workplace exposure concentrations. Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m<sup>3</sup> - total dust, 5 mg/m<sup>3</sup> - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m<sup>3</sup> - respirable particles, 10 mg/m<sup>3</sup> - inhalable particles.

### Personal protective equipment

**Respiratory protection** : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

**Hand protection**

**Material** : Chemical-resistant gloves

**Remarks** : For prolonged or repeated contact use protective gloves.

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Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:  
Safety glasses

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
When using do not eat, drink or smoke.  
Wash contaminated clothing before re-use.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: Viscous semi-solid
Color	: black
Odor	: Petroleum
Odor Threshold	: No data available
pH	: Not applicable (not an aqueous solution)
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: $\geq 392$ °F / $\geq 200$ °C
	Method: ASTM D 92, Cleveland open cup Distillates (petroleum), hydrotreated heavy naphthenic
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not classified as a flammability hazard
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: Not applicable
Relative vapor density	: Not applicable
Relative density	: 1.1
Density	: No data available

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Solubility(ies)  
Water solubility : negligible

Partition coefficient: n-octanol/water : Not applicable

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Flow time : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle size : No data available

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### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Can react with strong oxidizing agents.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Skin contact  
Ingestion  
Eye contact

#### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Calculation method

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**Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
Remarks: Based on data from similar materials
- Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Based on data from similar materials
- Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials

**Distillates (petroleum), hydrotreated heavy naphthenic:**

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
Remarks: Based on data from similar materials
- Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Based on data from similar materials
- Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials

**Graphite:**

- Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 423  
Assessment: The substance or mixture has no acute oral toxicity
- Acute inhalation toxicity : LC50 (Rat): > 2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

**Dilithium azelate:**

- Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg  
Method: OECD Test Guideline 420  
Remarks: Based on data from similar materials
- Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg



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Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials

**Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Remarks: Based on data from similar materials

**Talc:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Remarks: Based on data from similar materials

**Antimony, dialkyl dithiocarbamate:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**2,5-Bis(octyldithio)-1,3,4-thiadiazole:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 3.08 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

**Diocetyl disulphide:**

Acute oral toxicity : LD50 (Rat): > 290 - 500 mg/kg  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): 5.05 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Remarks: Based on data from similar materials

**Benzenesulphonic acid, propenated, calcium salts, overbased:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 402

**Quartz:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

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**Skin corrosion/irritation**

Not classified based on available information.

**Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

Species : Rabbit  
Result : No skin irritation  
Remarks : Based on data from similar materials

**Distillates (petroleum), hydrotreated heavy naphthenic:**

Species : Rabbit  
Result : No skin irritation  
Remarks : Based on data from similar materials

**Graphite:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

**Dilithium azelate:**

Method : OECD Test Guideline 439  
Result : No skin irritation  
Remarks : Based on data from similar materials

**Talc:**

Species : Rabbit  
Result : No skin irritation

**2,5-Bis(octyldithio)-1,3,4-thiadiazole:**

Species : Rabbit  
Result : Skin irritation

**Benzenesulphonic acid, propenated, calcium salts, overbased:**

Species : Rabbit  
Result : No skin irritation  
Remarks : Based on data from similar materials

**Serious eye damage/eye irritation**

Not classified based on available information.

**Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405  
Remarks : Based on data from similar materials

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**Distillates (petroleum), hydrotreated heavy naphthenic:**

Species : Rabbit  
Result : No eye irritation  
Remarks : Based on data from similar materials

**Graphite:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405

**Dilithium azelate:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405

**Talc:**

Species : Rabbit  
Result : No eye irritation

**2,5-Bis(octyldithio)-1,3,4-thiadiazole:**

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days

**Benzenesulphonic acid, propenated, calcium salts, overbased:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405

**Respiratory or skin sensitization****Skin sensitization**

May cause an allergic skin reaction.

**Respiratory sensitization**

Not classified based on available information.

**Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

Test Type : Buehler Test  
Routes of exposure : Skin contact  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : negative  
Remarks : Based on data from similar materials

**Distillates (petroleum), hydrotreated heavy naphthenic:**

Test Type : Buehler Test  
Routes of exposure : Skin contact  
Species : Guinea pig

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Result : negative  
Remarks : Based on data from similar materials

### **Graphite:**

Test Type : Local lymph node assay (LLNA)  
Routes of exposure : Skin contact  
Species : Mouse  
Result : negative

### **Dilithium azelate:**

Test Type : Local lymph node assay (LLNA)  
Routes of exposure : Skin contact  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : negative  
Remarks : Based on data from similar materials

### **Talc:**

Routes of exposure : Skin contact  
Species : Humans  
Result : negative

### **2,5-Bis(octyldithio)-1,3,4-thiadiazole:**

Routes of exposure : Skin contact  
Species : Guinea pig  
Result : positive

Assessment : Probability or evidence of skin sensitization in humans

### **Benzenesulphonic acid, propenated, calcium salts, overbased:**

Test Type : Buehler Test  
Routes of exposure : Skin contact  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : positive

Assessment : Probability or evidence of skin sensitization in humans

### **Germ cell mutagenicity**

Not classified based on available information.

### **Components:**

#### **Distillates (petroleum), hydrotreated heavy paraffinic:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse

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Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials

**Distillates (petroleum), hydrotreated heavy naphthenic:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials

**Graphite:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative

**Dilithium azelate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

**Talc:**

Genotoxicity in vitro : Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)  
Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro

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Species: Rat  
Application Route: Ingestion  
Result: negative

**Antimony, dialkyl dithiocarbamate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: equivocal

**Benzenesulphonic acid, propenated, calcium salts, overbased:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

**Carcinogenicity**

Not classified based on available information.

**Product:**

Carcinogenicity - Assessment : Petroleum distillates have been classified as not carcinogenic based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L).

**Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

Species : Mouse  
Application Route : Skin contact  
Exposure time : 78 weeks  
Method : OECD Test Guideline 451  
Result : negative  
Remarks : Based on data from similar materials

**Distillates (petroleum), hydrotreated heavy naphthenic:**

Species : Mouse  
Application Route : Skin contact  
Exposure time : 78 weeks  
Method : OECD Test Guideline 451  
Result : negative

**Talc:**

Species : Mouse  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 2 Years  
Result : negative

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### Quartz:

Species : Humans  
Application Route : inhalation (dust/mist/fume)  
Result : positive  
Remarks : IARC: (International Agency for Research on Cancer)  
These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

Carcinogenicity - Assessment : Positive evidence from human epidemiological studies (inhalation)

**IARC**      Group 1: Carcinogenic to humans  
Quartz      14808-60-7  
(Silica dust, crystalline)

**OSHA**      No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**      Known to be human carcinogen  
Quartz      14808-60-7  
(Silica, Crystalline (Respirable Size))

### Reproductive toxicity

Not classified based on available information.

### Components:

#### **Distillates (petroleum), hydrotreated heavy paraffinic:**

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Skin contact  
Method: OECD Test Guideline 414  
Result: negative  
Remarks: Based on data from similar materials

### **Graphite:**

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test

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Species: Rat  
 Application Route: Ingestion  
 Method: OECD Test Guideline 422  
 Result: negative

**Dilithium azelate:**

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test  
 Species: Rat  
 Application Route: Skin contact  
 Result: negative  
 Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Reproduction/Developmental toxicity screening test  
 Species: Rat  
 Application Route: Skin contact  
 Result: negative  
 Remarks: Based on data from similar materials

**Talc:**

Effects on fetal development : Test Type: Embryo-fetal development  
 Species: Rat  
 Application Route: Ingestion  
 Result: negative

**Antimony, dialkyl dithiocarbamate:**

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
 Species: Rat  
 Application Route: Ingestion  
 Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
 Species: Rat  
 Application Route: Ingestion  
 Result: negative

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Components:****Quartz:**

Routes of exposure : inhalation (dust/mist/fume)  
 Target Organs : Lungs  
 Assessment : Shown to produce significant health effects in animals at concentrations of 0.02 mg/l/6h/d or less.



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**Repeated dose toxicity****Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

Species : Rabbit  
NOAEL : 1,000 mg/kg  
Application Route : Skin contact  
Exposure time : 4 Weeks  
Method : OECD Test Guideline 410  
Remarks : Based on data from similar materials

Species : Rat  
NOAEL : > 980 mg/m<sup>3</sup>  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 4 Weeks

**Distillates (petroleum), hydrotreated heavy naphthenic:**

Species : Rat  
NOAEL : > 0.98 mg/l  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 28 Days  
Remarks : Based on data from similar materials

**Dilithium azelate:**

Species : Rat  
NOAEL : 1,089.75 mg/kg  
Application Route : Skin contact  
Exposure time : 28 Days  
Remarks : Based on data from similar materials

**Antimony, dialkyl dithiocarbamate:**

Species : Rat  
NOAEL : >= 1,000 mg/kg  
Application Route : Ingestion  
Exposure time : 54 Days

**Quartz:**

Species : Humans  
LOAEL : 0.053 mg/m<sup>3</sup>  
Application Route : inhalation (dust/mist/fume)  
Remarks : These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

**Aspiration toxicity**

Not classified based on available information.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
 Exposure time: 96 h  
 Method: OECD Test Guideline 203  
 Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l  
 Exposure time: 48 h  
 Method: OECD Test Guideline 202  
 Remarks: Based on data from similar materials
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201  
 Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l  
 Exposure time: 21 d  
 Method: OECD Test Guideline 211  
 Remarks: Based on data from similar materials
- Toxicity to microorganisms : NOEC: > 1.93 mg/l  
 Exposure time: 10 min  
 Method: DIN 38 412 Part 8  
 Remarks: Based on data from similar materials

**Distillates (petroleum), hydrotreated heavy naphthenic:**

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
 Exposure time: 96 h  
 Method: OECD Test Guideline 203  
 Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l  
 Exposure time: 48 h  
 Remarks: Based on data from similar materials
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201  
 Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l  
 Exposure time: 21 d  
 Remarks: Based on data from similar materials
- Toxicity to microorganisms : NOEC: > 1.93 mg/l

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Exposure time: 10 min  
 Remarks: Based on data from similar materials

**Graphite:**

- Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 100 mg/l  
 Exposure time: 96 h  
 Test substance: Water Accommodated Fraction  
 Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l  
 Exposure time: 48 h  
 Test substance: Water Accommodated Fraction  
 Method: OECD Test Guideline 202
- Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
 Exposure time: 72 h  
 Test substance: Water Accommodated Fraction  
 Method: OECD Test Guideline 201
- NOELR (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
 Exposure time: 72 h  
 Test substance: Water Accommodated Fraction  
 Method: OECD Test Guideline 201
- Toxicity to microorganisms : EC50: > 1,012.5 mg/l  
 Exposure time: 3 h  
 Method: OECD Test Guideline 209

**Dilithium azelate:**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 10 - 100 mg/l  
 Exposure time: 96 h  
 Method: OECD Test Guideline 203  
 Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l  
 Exposure time: 48 h  
 Method: OECD Test Guideline 202  
 Remarks: Based on data from similar materials
- Toxicity to algae : NOEC (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l  
 Exposure time: 72 h  
 Remarks: Based on data from similar materials
- ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
 Exposure time: 72 h  
 Remarks: Based on data from similar materials

**Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony:**

- Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 0.02 mg/l

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aquatic invertebrates (Chronic toxicity) : Exposure time: 21 d  
 Method: OECD Test Guideline 211  
 Remarks: Based on data from similar materials

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Talc:**

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100,000 mg/l  
 Exposure time: 24 h

**Antimony, dialkyl dithiocarbamate:**

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.02 mg/l  
 Exposure time: 21 d  
 Method: OECD Test Guideline 211

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Benzenesulphonic acid, propenated, calcium salts, overbased:**

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
 Exposure time: 96 h  
 Test substance: Water Accommodated Fraction  
 Method: OECD Test Guideline 203  
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 1,000 mg/l  
 Exposure time: 48 h  
 Test substance: Water Accommodated Fraction  
 Remarks: Based on data from similar materials

Toxicity to algae : NOELR (Pseudokirchneriella subcapitata (green algae)): 1,000 mg/l  
 Exposure time: 72 h  
 Test substance: Water Accommodated Fraction  
 Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50: > 10,000 mg/l  
 Exposure time: 3 h  
 Remarks: Based on data from similar materials

**Quartz:****Ecotoxicology Assessment**

Acute aquatic toxicity : No toxicity at the limit of solubility.

Chronic aquatic toxicity : No toxicity at the limit of solubility.

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**Persistence and degradability****Components:****Distillates (petroleum), hydrotreated heavy paraffinic:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 31 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

**Distillates (petroleum), hydrotreated heavy naphthenic:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 2 - 4 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

**Dilithium azelate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 83 %  
Exposure time: 30 d  
Method: OECD Test Guideline 301D  
Remarks: Based on data from similar materials

**Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony:**

Biodegradability : Result: Not readily biodegradable.  
Remarks: Based on data from similar materials

**Antimony, dialkyl dithiocarbamate:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 20 %  
Exposure time: 28 d

**Benzenesulphonic acid, propenated, calcium salts, overbased:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 12.5 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
Remarks: Based on data from similar materials

**Bioaccumulative potential****Components:****Dilithium azelate:**

Partition coefficient: n- : log Pow: -3.53  
octanol/water

**Benzenesulphonic acid, propenated, calcium salts, overbased:**

Partition coefficient: n- : log Pow: 5.8  
octanol/water

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**Mobility in soil**

No data available

**Other adverse effects**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
 Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death.  
 If not otherwise specified: Dispose of as unused product.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
 (Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony, Antimony, dialkyl dithiocarbamate)

Class : 9

Packing group : III

Labels : 9

**IATA-DGR**

UN/ID No. : UN 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
 (Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony, Antimony, dialkyl dithiocarbamate)

Class : 9

Packing group : III

Labels : Miscellaneous

Packing instruction (cargo aircraft) : 956

Packing instruction (passenger aircraft) : 956

Environmentally hazardous : yes

**IMDG-Code**

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
 (Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony, Antimony, dialkyl dithiocarbamate)

Class : 9

Packing group : III

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Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### Domestic regulation

#### 49 CFR

UN/ID/NA number : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
(Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony, Antimony, dialkyl dithiocarbamate)  
Class : 9  
Packing group : III  
Labels : CLASS 9  
ERG Code : 171  
Marine pollutant : yes(Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony, Antimony, dialkyl dithiocarbamate)  
Remarks : Above applies only to containers over 119 gallons or 450 liters., Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY INFORMATION

### EPCRA - Emergency Planning and Community Right-to-Know

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Hydrogen sulfide	7783-06-4	100	135869
Ammonia	7664-41-7	100	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Hydrogen sulfide	7783-06-4	100	135869
Ammonia	7664-41-7	100	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Respiratory or skin sensitization

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**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1	>= 1 - < 5 %
Antimony, dialkyl dithiocarbamate	15890-25-2	>= 1 - < 5 %

### US State Regulations

#### Pennsylvania Right To Know

Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Graphite	7782-42-5
Hydroxystearate sebacate lithium complexes	68815-49-6
Dilithium azelate	38900-29-7
Polytetrafluoroethylene	9002-84-0
Water	7732-18-5
Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1
Talc	14807-96-6
Antimony, dialkyl dithiocarbamate	15890-25-2
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3
Hydrogen sulfide	7783-06-4
Ammonia	7664-41-7

#### California Prop. 65

WARNING: This product can expose you to chemicals including Quartz, which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### California List of Hazardous Substances

Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Graphite	7782-42-5
Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1
Talc	14807-96-6
Antimony, dialkyl dithiocarbamate	15890-25-2

#### California Permissible Exposure Limits for Chemical Contaminants

Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Graphite	7782-42-5
Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1
Talc	14807-96-6
Antimony, dialkyl dithiocarbamate	15890-25-2

#### California Regulated Carcinogens

Quartz	14808-60-7
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#### The ingredients of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

TSCA : All chemical substances in this product are either listed on the



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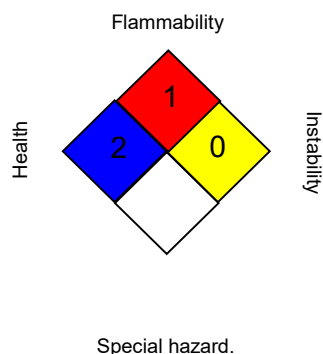
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AICS : TSCA Inventory or are in compliance with a TSCA Inventory exemption.  
: All ingredients listed or exempt.

### SECTION 16. OTHER INFORMATION

#### Further information

##### NFPA 704:



##### HMIS® IV:

HEALTH	/	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "/" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
NIOSH REL : USA. NIOSH Recommended Exposure Limits  
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants  
OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts  
ACGIH / TWA : 8-hour, time-weighted average  
NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek  
NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday  
OSHA Z-1 / TWA : 8-hour time weighted average  
OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organiza-

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tion; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

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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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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