



SAFETY DATA SHEET

Group 1- White Grade II Tie Gum

Section 1. Identification

GHS product identifier : Group 1- White Grade II Tie Gum
Product code : Not available.
Other means of identification : Not available.
Product type : Solid.

Relevant identified uses of the substance or mixture and uses advised against

| Identified uses |
|--|
| Unvulcanized Custom Mixed Rubber Compound. |

Supplier's details : Fenner Dunlop Conveyor Belting
 654 Camp Joy Road, Building 2 Suite B
 Bluefield, Virginia 24605
 USA
 Tel.: 276-322-1426

Emergency telephone number (with hours of operation) : CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3877
 Registration number: 8338
 (24/7)

Section 2. Hazard(s) identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1A
 AQUATIC HAZARD (ACUTE) - Category 3
 AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H317 - May cause an allergic skin reaction.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P280 - Wear protective gloves.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing dust.
 P272 - Contaminated work clothing should not be allowed out of the workplace.



Section 2. Hazard(s) identification

| | |
|--|---|
| Response | : P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. |
| Storage | : Not applicable. |
| Disposal | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Hazards not otherwise classified (US) | : None known. |

Section 3. Composition/information on ingredients

| | |
|--------------------------------------|------------------|
| Substance/mixture | : Mixture |
| Other means of identification | : Not available. |

| Ingredient name | % (w/w) | CAS number |
|--|-----------|-------------|
| Silica gel, pptd., cryst.-free | 10 - 30 | 112926-00-8 |
| Titanium dioxide | 5 - 10 | 13463-67-7 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 3 - 7 | 64742-52-5 |
| Zinc oxide | 1 - 5 | 1314-13-2 |
| Urea | 1 - 5 | 57-13-6 |
| 4-(1-Methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline | 0.5 - 1.5 | 10081-67-1 |
| Sulfur | 0.5 - 1.5 | 7704-34-9 |
| N-cyclohexylbenzothiazole-2-sulphenamide | 0.1 - 1 | 95-33-0 |
| Thiram | 0.1 - 1 | 137-26-8 |
| N-(cyclohexylthio)phthalimide | 0.1 - 1 | 17796-82-6 |

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

| | |
|---------------------|--|
| Eye contact | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs. |
| Inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Skin contact | : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : Adverse symptoms may include the following:
irritation
redness
Ingestion : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

- Specific hazards arising from the chemical** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|--|
| Silica gel, pptd., cryst.-free | NIOSH REL (United States, 10/2016). TWA: 6 mg/m ³ 10 hours. |
| Titanium dioxide | ACGIH TLV (United States, 3/2020). TWA: 10 mg/m ³ 8 hours. |
| | OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust |
| Distillates (petroleum), hydrotreated heavy naphthenic | ACGIH TLV (United States, 3/2019). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction |
| | NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Mist |
| | STEL: 10 mg/m ³ 15 minutes. Form: Mist |
| | OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. |
| Zinc oxide | NIOSH REL (United States, 10/2016). CEIL: 15 mg/m ³ Form: Dust |
| | TWA: 5 mg/m ³ 10 hours. Form: Dust and fumes |
| | STEL: 10 mg/m ³ 15 minutes. Form: Fume |
| | OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Fume |
| | TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction |
| | TWA: 15 mg/m ³ 8 hours. Form: Total dust |
| | ACGIH TLV (United States, 3/2020). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction |
| | STEL: 10 mg/m ³ 15 minutes. Form: Respirable fraction |
| Urea | AIHA WEEL (United States, 7/2020). TWA: 10 mg/m ³ 8 hours. |
| 4-(1-Methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline | None. |
| Sulfur | None. |
| N-cyclohexylbenzothiazole-2-sulphenamide | None. |
| Thiram | NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. |
| | OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. |
| | ACGIH TLV (United States, 3/2020). Skin sensitizer. |

Section 8. Exposure controls/personal protection

N-(cyclohexylthio)phthalimide

TWA: 0.05 mg/m³ 8 hours. Form: Inhalable fraction and vapor
None.

Canada

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|---|
| Silica gel, pptd., cryst.-free | CA British Columbia Provincial (Canada, 1/2020). TWA: 1.5 mg/m ³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 7/2019). TWAEV: 6 mg/m ³ 8 hours. Form: Respirable dust. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m ³ 15 minutes. TWA: 10 mg/m ³ 8 hours. |
| Titanium dioxide | CA British Columbia Provincial (Canada, 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Total dust TWA: 3 mg/m ³ 8 hours. Form: respirable fraction CA Quebec Provincial (Canada, 7/2019). TWAEV: 10 mg/m ³ 8 hours. Form: Total dust. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m ³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 10 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m ³ 15 minutes. TWA: 10 mg/m ³ 8 hours. |
| Distillates (petroleum), hydrotreated heavy naphthenic | CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 5 mg/m ³ 8 hours. Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Form: Mist CA Quebec Provincial (Canada, 1/2014). TWAEV: 5 mg/m ³ 8 hours. Form: mist STEV: 10 mg/m ³ 15 minutes. Form: mist |
| Zinc oxide | CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 2 mg/m ³ 8 hours. Form: Respirable 15 min OEL: 10 mg/m ³ 15 minutes. Form: Respirable CA British Columbia Provincial (Canada, 1/2020). TWA: 2 mg/m ³ 8 hours. Form: Respirable STEL: 10 mg/m ³ 15 minutes. Form: Respirable CA Saskatchewan Provincial (Canada, 7/2013). STEL: 10 mg/m ³ 15 minutes. Form: Respirable dust and fume. TWA: 2 mg/m ³ 8 hours. Form: Respirable |



Section 8. Exposure controls/personal protection

| | |
|--------|---|
| Urea | dust and fume. CA Ontario Provincial (Canada, 6/2019). TWA: 2 mg/m ³ 8 hours. Form: Respirable particulate matter STEL: 10 mg/m ³ 15 minutes. Form: Respirable particulate matter |
| Sulfur | CA Quebec Provincial (Canada, 7/2019). TWA: 5 mg/m ³ 8 hours. Form: fume STEL: 10 mg/m ³ 15 minutes. Form: fume |
| Thiram | AIHA WEEL (United States, 7/2020). TWA: 10 mg/m ³ 8 hours. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m ³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 0.05 mg/m ³ 8 hours. Form: Inhalable fraction and vapor CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). Skin sensitizer. TWA: 1 mg/m ³ 8 hours. CA Quebec Provincial (Canada, 7/2019). TWA: 5 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 3 mg/m ³ 15 minutes. TWA: 1 mg/m ³ 8 hours. |

Appropriate engineering controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Solid. [Opaque.]
- Color** : White.
- Odor** : None.
- Odor threshold** : Not applicable.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Not applicable.
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not applicable.
- Vapor pressure** : Not available.
- Relative vapor density** : Not applicable.
- Relative density** : 1.2
- Solubility** : Insoluble in water.
- Solubility in water** : Insoluble.
- Miscible with water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not available.
- Particle characteristics**
- Median particle size** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|---------------------------------|---------|------------------------|----------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LD50 Oral | Rat | >5000 mg/kg | - |
| Urea | LD50 Oral | Rat | 8471 mg/kg | - |
| 4-(1-Methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline | LD50 Oral | Rat | >10000 mg/kg | - |
| N-cyclohexylbenzothiazole-2-sulphenamide | LD50 Dermal | Rabbit | >7940 mg/kg | - |
| Thiram | LD50 Oral | Rat | 5300 mg/kg | - |
| | LC50 Inhalation Dusts and mists | Rat | 4420 mg/m ³ | 4 hours |
| | LD50 Dermal | Rat | >5000 mg/kg | - |
| | LD50 Oral | Rat | 560 mg/kg | - |
| N-(cyclohexylthio)phthalimide | LD50 Dermal | Rabbit | >5 g/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|---------|-------|-----------------|-------------|
| N-cyclohexylbenzothiazole-2-sulphenamide | Eyes - Mild irritant | Rabbit | - | 100 % | - |
| Thiram | Skin - Mild irritant | Rabbit | - | 100 % | - |
| | Eyes - Mild irritant | Rabbit | - | 100 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| N-(cyclohexylthio)phthalimide | Skin - Mild irritant | Rabbit | - | 100 % | - |
| | Eyes - Mild irritant | Rabbit | - | 70 mg | - |

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity



Section 11. Toxicological information

Classification United States

| Product/ingredient name | OSHA | IARC | NTP |
|--------------------------------|------|------|-----|
| Silica gel, pptd., cryst.-free | - | 3 | - |
| Titanium dioxide | - | 2B | - |
| Thiram | - | 3 | - |

Classification Canada

| Product/ingredient name | IARC | NTP | ACGIH |
|--------------------------------|------|-----|-------|
| Silica gel, pptd., cryst.-free | 3 | - | - |
| Titanium dioxide | 2B | - | A4 |
| Thiram | 3 | - | A4 |

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--------|------------|-------------------|---------------|
| Thiram | Category 2 | - | - |

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Routes of entry anticipated: Dermal.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : Adverse symptoms may include the following:
irritation
redness
Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Section 11. Toxicological information

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| Urea | 8471 | N/A | N/A | N/A | N/A |
| N-cyclohexylbenzothiazole-2-sulphenamide | 5300 | N/A | N/A | N/A | N/A |
| Thiram | 560 | N/A | N/A | N/A | 4.42 |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--------------------------------|---------------------------------------|--|----------|
| Titanium dioxide Zinc oxide | Acute LC50 >1000000 µg/L Marine water | Fish - Fundulus heteroclitus | 96 hours |
| | Acute IC50 1.85 mg/L Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute IC50 46 µg/L Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 72 hours |
| Urea | Acute LC50 98 µg/L Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 1.1 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 6573.1 mg/L Fresh water | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |
| | Acute EC50 3910000 µg/L Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Chronic NOEC 2 g/L Fresh water | Fish - Heteropneustes fossilis | 30 days |
| Sulfur Thiram | Acute LC50 >100 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 1000 µg/L Fresh water | Algae - Chlorella pyrenoidosa | 96 hours |
| | Acute EC50 0.04 mg/L Marine water | Algae - Nannochloropsis oculata | 72 hours |
| | Acute LC50 0.02 mg/L Marine water | Crustaceans - Artemia franciscana - Nauplii | 48 hours |
| | Acute LC50 0.01 mg/L Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 0.007 mg/L Fresh water | Fish - Rasbora heteromorpha | 96 hours |
| | Chronic NOEC 1.1 ppb Fresh water | Fish - Pimephales promelas | 210 days |

Section 12. Ecological information

Persistence and degradability

There is no data available.

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|-------|-----------|
| Zinc oxide | - | 28960 | high |
| Urea | <-1.73 | - | low |
| N-cyclohexylbenzothiazole-2-sulphenamide | 5 | - | high |
| Thiram | 1.8 | 3.39 | low |
| N-(cyclohexylthio)phthalimide | 2.82 to 3.56 | - | low |

Mobility in soil



Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | IMDG | IATA |
|-----------------------------------|--|--------------------|----------------|----------------|
| UN number | UN3077 | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiram) | - | - | - |
| Transport hazard class(es) | 9   | - | - | - |
| Packing group | III | - | - | - |
| Environmental hazards | Yes. | No. | No. | No. |

AERG : 171

Section 14. Transport information

- DOT (RQ) Details** : Thiram 10 lbs / 4.54 kg
- Additional information**
- DOT Classification** : Non-bulk packages of this product are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg.
Reportable quantity 6666.7 lbs / 3026.7 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- Transport in bulk according to IMO instruments** : Not available.

Section 15. Regulatory information

- U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
Clean Water Act (CWA) 307: Zinc oxide
- Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed
- Clean Air Act Section 602 Class I Substances** : Not listed
- Clean Air Act Section 602 Class II Substances** : Not listed
- DEA List I Chemicals (Precursor Chemicals)** : Not listed
- DEA List II Chemicals (Essential Chemicals)** : Not listed
- SARA 302/304**
- Composition/information on ingredients**
- No products were found.
- SARA 304 RQ** : Not applicable.
- SARA 311/312**
- Classification** : SKIN SENSITIZATION - Category 1
- Composition/information on ingredients**

Section 15. Regulatory information

| Name | % | Classification |
|---|--------------|--|
| 4-(1-Methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl] aniline | ≥1 - ≤3 | SKIN SENSITIZATION - Category 1 |
| Sulfur | ≥1 - ≤3 | FLAMMABLE SOLIDS - Category 2 SKIN CORROSION/IRRITATION - Category 2 |
| N-cyclohexylbenzothiazole-2-sulphenamide | ≥0.3 - ≤0.82 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1 |
| Thiram | ≤0.15 | ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |
| N-(cyclohexylthio)phthalimide | ≤0.15 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1A |

SARA 313

| | Product name | CAS number | % |
|---------------------------------|--------------|------------|---------|
| Form R - Reporting requirements | Zinc oxide | 1314-13-2 | ≥1 - ≤3 |
| Supplier notification | Zinc oxide | 1314-13-2 | ≥1 - ≤3 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: Silica gel, pptd., cryst.-free; Titanium dioxide; Distillates (petroleum), hydrotreated heavy naphthenic; Zinc oxide; Sulfur
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: Silica gel, pptd., cryst.-free; Titanium dioxide; Zinc oxide; Sulfur; Thiram
- Pennsylvania** : The following components are listed: Silica gel, pptd., cryst.-free; Titanium dioxide; Zinc oxide; Sulfur

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

Canadian lists

- Canadian NPRI** : The following components are listed: Zinc oxide
- CEPA Toxic substances** : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Section 15. Regulatory information

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : Not determined.

United States (TSCA 8b) : All components are active or exempted.

Section 16. Other information

Procedure used to derive the classification

| Classification | Justification |
|---|--------------------|
| SKIN SENSITIZATION - Category 1A | Calculation method |
| AQUATIC HAZARD (ACUTE) - Category 3 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 3 | Calculation method |

History

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Prepared by : KMK Regulatory Services Inc.

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.