Conforms to HCS 2012 - United States

Compliant SDS for GHS - Canada WHMIS 2015

SAFETY DATA SHEET

Butyl Tape

Section 1. Identification

GHS product identifier : Butyl Tape

Product code : 98-084

Other means of identification : IL

Product type : Solid.

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

Identified uses

Supplier's details : Patch Rubber Company
100 Patch Rubber Road
Weldon, NC 27890
United States
Phone: (252)536-2574

Emergency telephone number (with hours of operation) : CHEMTREC, U.S.: 1-800-424-9300 International: +1-703-527-3887
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 : RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION (Fertility) - Category 2
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H317 - May cause an allergic skin reaction.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361f - Suspected of damaging fertility.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Section 2. Hazard(s) identification

Prevention : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P284 - Wear respiratory protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing dust.
P272 - Contaminated work clothing should not be allowed out of the workplace.

Response : P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
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 : P405 - Store locked up.

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 : IL

Ingredient name	% (w/w)	CAS number
Carbon black, non respirable	10 - 30	1333-86-4
Limestone	10 - 30	1317-65-3
Rubber, natural	7 - 13	9006-04-6
Distillates (petroleum), hydrotreated heavy naphthenic	3 - 7	64742-52-5
Zinc oxide	0.5 - 1.5	1314-13-2
1,3-Diphenylguanidine	0.1 - 1	102-06-7
Phenol, 4-(1,1-dimethylpropyl)-, polymer with sulfur chloride (S2Cl2)	0.1 - 1	68555-98-6
di(Benzothiazol-2-yl) Disulphide	0.1 - 1	120-78-5
Crystalline silica, respirable powder	0.1 - 1	14808-60-7
Rosin	0.1 - 1	8050-09-7
Thiram	0.1 - 1	137-26-8

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 as hazardous to health or the environment 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 it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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 the event of any complaints or symptoms, avoid further exposure.

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.

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. 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 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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 : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 toxic 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
metal oxide/oxides

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. Collect spillage.

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

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 or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.

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. Store locked up. 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
Carbon black, non respirable	**ACGIH TLV (United States, 3/2020).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2016).** TWA: 3.5 mg/m³ 10 hours. TWA: 0.1 mg of PAHs/cm³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 3.5 mg/m³ 8 hours.
Limestone	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **NIOSH REL (United States, 10/2016).** TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total

Section 8. Exposure controls/personal protection

Rubber, natural	**ACGIH TLV (United States, 3/2020). Absorbed through skin. Skin sensitizer. Inhalation sensitizer.** TWA: 0.0001 mg/m³, (as inhalable allergenic proteins) 8 hours. Form: Inhalable fraction
Distillates (petroleum), hydrotreated heavy naphthenic	**ACGIH TLV (United States, 3/2019).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2016).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours.
Zinc oxide	**NIOSH REL (United States, 10/2016).** CEIL: 15 mg/m³ Form: Dust TWA: 5 mg/m³ 10 hours. Form: Dust and fumes STEL: 10 mg/m³ 15 minutes. Form: Fume **OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Fume TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 3/2020).** TWA: 2 mg/m³ 8 hours. Form: Respirable fraction STEL: 10 mg/m³ 15 minutes. Form: Respirable fraction
1,3-Diphenylguanidine	None.
Phenol, 4-(1,1-dimethylpropyl)-, polymer with sulfur chloride (S2Cl2)	None.
di(Benzothiazol-2-yl) Disulphide	None.
Crystalline silica, respirable powder	**OSHA PEL Z3 (United States, 6/2016).** TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable **OSHA PEL (United States, 5/2018).** TWA: 50 µg/m³ 8 hours. Form: Respirable dust **ACGIH TLV (United States, 3/2020).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction **NIOSH REL (United States, 10/2016).** TWA: 0.05 mg/m³ 10 hours. Form: respirable dust
Rosin	**ACGIH TLV (United States, 3/2020). Skin sensitizer. Inhalation sensitizer.**
Thiram	**NIOSH REL (United States, 10/2016).** TWA: 5 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2020). Skin sensitizer.** TWA: 0.05 mg/m³ 8 hours. Form: Inhalable fraction and vapor

Section 8. Exposure controls/personal protection

Canada

Occupational exposure limits

Ingredient name	Exposure limits
Carbon black, non respirable	**CA British Columbia Provincial (Canada, 1/2020).** TWA: 3 mg/m³ 8 hours. Form: Inhalable **CA Ontario Provincial (Canada, 6/2019).** TWA: 3 mg/m³ 8 hours. Form: Inhalable particulate matter. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 3.5 mg/m³ 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 3.5 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 7 mg/m³ 15 minutes. TWA: 3.5 mg/m³ 8 hours.
Limestone	**CA British Columbia Provincial (Canada, 1/2020).** TWA: 10 mg/m³ 8 hours. Form: Total dust STEL: 20 mg/m³ 15 minutes. TWA: 3 mg/m³ 8 hours. Form: respirable fraction **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 10 mg/m³ 8 hours. Form: Total dust. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.
Rubber, natural	**CA British Columbia Provincial (Canada, 1/2020). Absorbed through skin. Skin sensitizer. Inhalation sensitizer.** TWA: 0.001 mg/m³, (as total proteins) 8 hours. Form: Inhalable **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. Skin sensitizer.** STEL: 0.003 mg/m³, (measured as total proteins) 15 minutes. Form: Inhalable fraction TWA: 0.001 mg/m³, (measured as total proteins) 8 hours. Form: Inhalable fraction **CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.** TWA: 0.0001 mg/m³, (as inhalable allergenic proteins) 8 hours. Form: Inhalable particulate matter. **CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 0.001 mg/m³, (as total proteins) 8 hours.
Distillates (petroleum), hydrotreated heavy naphthenic	**CA Alberta Provincial (Canada, 6/2018).**

Section 8. Exposure controls/personal protection

	8 hrs OEL: 5 mg/m³ 8 hours. Form: Mist 15 min OEL: 10 mg/m³ 15 minutes. Form: Mist **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 5 mg/m³ 8 hours. Form: mist STEV: 10 mg/m³ 15 minutes. Form: mist
Zinc oxide	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 2 mg/m³ 8 hours. Form: Respirable 15 min OEL: 10 mg/m³ 15 minutes. Form: Respirable **CA British Columbia Provincial (Canada, 1/2020).** TWA: 2 mg/m³ 8 hours. Form: Respirable STEL: 10 mg/m³ 15 minutes. Form: Respirable **CA Ontario Provincial (Canada, 6/2019).** TWA: 2 mg/m³ 8 hours. Form: Respirable particulate matter. STEL: 10 mg/m³ 15 minutes. Form: Respirable particulate matter. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 5 mg/m³ 8 hours. Form: fume STEV: 10 mg/m³ 15 minutes. Form: fume **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 10 mg/m³ 15 minutes. Form: respirable dust and fume TWA: 2 mg/m³ 8 hours. Form: respirable dust and fume
Crystalline silica, respirable powder	**CA British Columbia Provincial (Canada, 1/2020).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 0.1 mg/m³ 8 hours. Form: Respirable dust. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate **CA Ontario Provincial (Canada, 6/2019).** TWA: 0.1 mg/m³ 8 hours. Form: Respirable particulate matter. **CA Saskatchewan Provincial (Canada, 7/2013).** TWA: 0.05 mg/m³ 8 hours. Form: respirable fraction
Rosin	**CA Quebec Provincial (Canada, 7/2019). Skin sensitizer.** TWAEV: 0.1 mg/m³, (formaldehyde) 8 hours.
Thiram	**CA Ontario Provincial (Canada, 6/2019).** TWA: 0.05 mg/m³ 8 hours. Form: Inhalable fraction and vapour. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

	CA British Columbia Provincial (Canada, 1/2020). Skin sensitizer. TWA: 1 mg/m³ 8 hours. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 5 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 3 mg/m³ 15 minutes. TWA: 1 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.

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

Appearance

Physical state : Solid. [Rubber.]

Color : Black.

Odor : Rubber.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Initial boiling point and boiling range : Not available.

Flash point : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not applicable.

Vapor pressure : Not available.

Vapor density : Not applicable.

Relative density : 1.18 to 1.24

Solubility : Not available.

Solubility in 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.

VOC = Volatile Organic Compound : 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
Carbon black, non respirable	LD50 Oral	Rat	>15400 mg/kg	-
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
1,3-Diphenylguanidine	LD50 Oral	Rat	323 mg/kg	-
di(Benzothiazol-2-yl) Disulphide	LD50 Dermal	Rabbit	>7940 mg/kg	-
	LD50 Oral	Rat	>12 g/kg	-
Rosin	LD50 Oral	Rat	7600 mg/kg	-
Thiram	LC50 Inhalation Dusts and mists	Rat	4420 mg/m³	4 hours
	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	560 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Thiram	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Rabbit	-	100 %	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline silica, respirable powder	-	1	Known to be a human carcinogen.
Thiram	-	3	-

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1,3-Diphenylguanidine	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Crystalline silica, respirable powder Thiram	Category 1 Category 2	inhalation -	respiratory tract -

Aspiration hazard

There is no data available.

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

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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 : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

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.

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.

Section 11. Toxicological information

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility.

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)
1,3-Diphenylguanidine	323	N/A	N/A	N/A	N/A
Rosin	7600	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
Carbon black, non respirable	Acute EC50 37.563 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Zinc oxide	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
	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
Thiram	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

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Zinc oxide	-	28960	high
1,3-Diphenylguanidine	2.42	<20	low
di(Benzothiazol-2-yl) Disulphide	4.5	1.4 to 51	low
Rosin	1.9 to 7.7	-	high
Thiram	1.8	3.39	low

Section 12. Ecological information

Mobility in soil

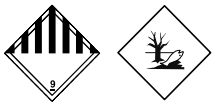
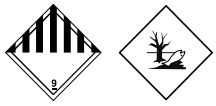
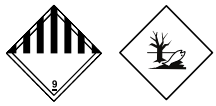
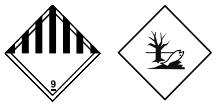
Soil/water partition coefficient (K_{OC}) : Not available.

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	UN3077	UN3077	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)
Transport hazard class(es)	9 	9 	9 	9 
Packing group	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes.

AERG : 171

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 7284.4 lbs / 3307.1 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).
Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.

Section 14. Transport information

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Emergency schedules F-A, S-F

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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 6 proposed risk management**: Lead
TSCA 8(a) PAIR: 4-(1,1,3,3-Tetramethylbutyl)phenol
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 307: Zinc oxide; Cadmium Oxide; Lead Monoxide; Lead; Cadmium (Non-pyrophoric)
Clean Water Act (CWA) 311: Formaldehyde; Hydrochloric acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : 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

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
Cadmium Oxide	<0.01	Yes.	100 / 10000	-	100	-
Formaldehyde	≤0.001	Yes.	500	-	100	-
Hydrochloric acid	≤0.00001	Yes.	500	-	5000	-

SARA 304 RQ : 3108003.1 lbs / 1411033.4 kg

SARA 311/312

Classification : RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION (Fertility) - Category 2

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
Rubber, natural	≥10 - ≤25	RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1
1,3-Diphenylguanidine	≥0.3 - <1	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Fertility) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Phenol, 4-(1,1-dimethylpropyl)-, polymer with sulfur chloride (S2Cl2)	≥0.3 - ≤1	SKIN SENSITIZATION - Category 1
di(Benzothiazol-2-yl) Disulphide	≥0.3 - ≤1	SKIN SENSITIZATION - Category 1
Crystalline silica, respirable powder	≥0.3 - <1	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Rosin	≤0.3	SKIN SENSITIZATION - Category 1
Thiram	≥0.1 - ≤0.3	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

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: Carbon black, non respirable; Limestone; Distillates (petroleum), hydrotreated heavy naphthenic; Zinc oxide

New York : None of the components are listed.

New Jersey : The following components are listed: Carbon black, non respirable; Limestone; Zinc oxide; Crystalline silica, respirable powder; Thiram

Pennsylvania : The following components are listed: Carbon black, non respirable; Limestone; Zinc oxide

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Cadmium Oxide, Lead and Cadmium (Non-pyrophoric), which are known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Carbon black, non respirable, Crystalline silica, respirable powder, Lead Monoxide and Formaldehyde, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Section 15. Regulatory information

Ingredient name	No significant risk level	Maximum acceptable dosage level
Carbon black, non respirable	-	-
Crystalline silica, respirable powder	-	-
Cadmium Oxide	-	-
Lead Monoxide	-	-
Formaldehyde	Yes.	-
Lead	Yes.	Yes.
Cadmium (Non-pyrophoric)	Yes.	Yes.

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)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : Not determined.

Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : All components are listed or exempted.

Philippines : Not determined.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

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

Viet Nam : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
RESPIRATORY SENSITIZATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION (Fertility) - Category 2	Calculation method
AQUATIC HAZARD (ACUTE) - Category 2	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	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

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