Tapecoat High Temperature Butyl Tapes

Chase Corporation - Tapecoat Division

Chemwatch: **25690-93**
Version No: **3.1**
Safety Data Sheet according to OSHA HazCom Standard (2024) requirements

Initial Date: **08/09/2026**
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S.GHS.USA.EN.E.B

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Tapecoat High Temperature Butyl Tapes
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**Chase Corporation - Tapecoat Division**
Address	1527 Lyons Street, Evanston 60201 IL United States of America
Telephone	1 800 543-3458
Fax	Not Available
Website	info@chasecorp.com
Email	Not Available

Emergency phone number

Association / Organisation	**Chemtrec**
Emergency telephone number(s)	**1-800-424-9300 (US)**
Other emergency telephone number(s)	**(+1)703-527-3887 (outside the US)**

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

Classification	Non hazardous

Label elements

Hazard pictogram(s)	Not Applicable
SIGNAL WORD	**NOT APPLICABLE**

Hazard statement(s)

Not Applicable

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

No further product hazard information.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	30-60	ingredients, proprietary
9010-85-9	20-30	isoprene/ isobutene copolymer (butyl rubber)
1332-58-7	10-20	kaolin
9003-27-4	10-20	isobutylene homopolymer
14807-96-6	10-20	talc
8029-10-5	1-10	coal, anthracite
1314-13-2	1-10	zinc oxide
119-47-1	<1	2,2'-methylenebis(6-tert-butyl-4-methylphenol)
12001-26-2	<1	mica
546-93-0	<1	magnesium carbonate
1318-59-8	<1	chlorite
Not Available	Balance	Ingredients determined not to be hazardous

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: • Immediately hold eyelids apart and flush the eye continuously with running water. • Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. • Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. • Transport to hospital or doctor without delay. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: • Immediately flush body and clothes with large amounts of water, using safety shower if available. • Quickly remove all contaminated clothing, including footwear. • Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. • Transport to hospital, or doctor. For thermal burns: • Decontaminate area around burn. • Consider the use of cold packs and topical antibiotics. For first-degree burns (affecting top layer of skin) • Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. • Use compresses if running water is not available. • Cover with sterile non-adhesive bandage or clean cloth. • Do NOT apply butter or ointments; this may cause infection. • Give over-the counter pain relievers if pain increases or swelling, redness, fever occur. For second-degree burns (affecting top two layers of skin) • Cool the burn by immerse in cold running water for 10-15 minutes. • Use compresses if running water is not available. • Do NOT apply ice as this may lower body temperature and cause further damage. • Do NOT break blisters or apply butter or ointments; this may cause infection. • Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape. To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort): • Lay the person flat. • Elevate feet about 12 inches. • Elevate burn area above heart level, if possible. • Cover the person with coat or blanket. • Seek medical assistance. For third-degree burns Seek immediate medical or emergency assistance. In the mean time: • Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound. • Separate burned toes and fingers with dry, sterile dressings. • Do not soak burn in water or apply ointments or butter; this may cause infection. • To prevent shock see above. • For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway. • Have a person with a facial burn sit up. • Check pulse and breathing to monitor for shock until emergency help arrives.
Inhalation	• If fumes or combustion products are inhaled remove from contaminated area. • Lay patient down. Keep warm and rested.

	• Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. • Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. • Transport to hospital, or doctor, without delay.
Ingestion	• Give a slurry of activated charcoal in water to drink. **NEVER** GIVE AN UNCONSCIOUS PATIENT WATER TO DRINK. • At least 3 tablespoons in a glass of water should be given. • Although induction of vomiting may be recommended (**IN CONSCIOUS PERSONS ONLY**), such a first aid measure is dissuaded due to the risk of aspiration of stomach contents. (i) It is better to take the patient to a doctor who can decide on the necessity and method of emptying the stomach. (ii) Special circumstances may however exist; these include non-availability of charcoal and the ready availability of the doctor. **NOTE:** If vomiting is induced, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. **NOTE:** Wear protective gloves when inducing vomiting. • REFER FOR MEDICAL ATTENTION WITHOUT DELAY. • In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. • If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. • If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. (ICSC20305/20307)

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

- Sand, dry powder extinguishers or other inerts should be used to smother dust fires.

Special hazards arising from the substance or mixture

Fire Incompatibility	• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	• Alert Fire Brigade and tell them location and nature of hazard. • Wear breathing apparatus plus protective gloves. • Prevent, by any means available, spillage from entering drains or water courses. • Use water delivered as a fine spray to control fire and cool adjacent area. • **DO NOT** approach containers suspected to be hot. • Cool fire exposed containers with water spray from a protected location.
Fire/Explosion Hazard	• Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. • Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). • Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. • In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC). Combustion products include: • carbon monoxide (CO) • carbon dioxide (CO2) silicon dioxide (SiO2) metal oxides • other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes. A fire in bulk finely divided carbon may not be obviously visible unless the material is disturbed and sparks appear. A straw broom may be useful to produce the disturbance. Explosion and Ignition Behaviour of Carbon Black with Air Lower Limit for Explosion: 50 g/m3 (carbon black in air) Maximum Explosion Pressure: 10 bar Maximum Rate of Pressure Rise: 30-100 bar/sec Minimum Ignition Temperature: 315 deg. C. Ignition Energy: >1 kJ Glow Temperature: 500 deg. C.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	• Clean up all spills immediately. • Avoid breathing dust and contact with skin and eyes. • Wear protective clothing, gloves, safety glasses and dust respirator. • Use dry clean up procedures and avoid generating dust. • Sweep up, shovel up or • Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). • Place spilled material in clean, dry, sealable, labelled container.
Major Spills	Moderate hazard. • **CAUTION**: Advise personnel in area. • Alert Emergency Services and tell them location and nature of hazard. • Control personal contact by wearing protective clothing. • Prevent, by any means available, spillage from entering drains or water courses. • Recover product wherever possible.

Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	**NOTE:** • Wet, activated carbon removes oxygen from the air thus producing a severe hazard to workers inside carbon vessels and in enclosed or confined spaces where activated carbons might accumulate. • Before entry to such areas, sampling and test procedures for low oxygen levels should be undertaken; control conditions should be established to ensure the availability of adequate oxygen supply. • Avoid skin contact, including inhalation. • Wear protective clothing when risk of exposure occurs. • Use in a well-ventilated area. • Prevent concentration in hollows and sumps. • **DO NOT** enter confined spaces until atmosphere has been checked. • **DO NOT** allow material to come in direct contact with human skin or eyes. • Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) • Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. • Establish good housekeeping practices. • Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. • Use continuous suction at points of dust generation to capture and minimise the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimise the probability of a "secondary" explosion.
Other information	Carbon and charcoal may be stabilised for storage and transport, without moistening, by treatment with hot air at 50 deg. C.. Use of oxygen-impermeable bags to limit oxygen and moisture uptake has been proposed. Surface contamination with oxygenated volatiles may generate a heat of reaction (spontaneous heating). Should stored product reach 110 deg. C. • Store in original containers. • Keep containers securely sealed. • Store in a cool, dry area protected from environmental extremes. • Store away from incompatible materials and foodstuff containers. • Protect containers against physical damage and check regularly for leaks. • Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	• Polyethylene or polypropylene container. • Check all containers are clearly labelled and free from leaks.
Storage incompatibility	• Some grades of coal, when size reduced to powder / dust, are prone to oxidation with development of heat. Fine grinding with large surface area development results rapid oxidation / heating. If this heat is not effectively dissipated the oxidation becomes exothermic and fire results. • High sulfur coals may ignite on grinding. • Bags of freshly ground dust may be prone to smouldering combustion. • Autoignition of fresh charcoal, but not gunpowder prepared from it, is known to have happened in the black powder industry. For carbon powders: • Avoid oxidising agents, reducing agents. • Reaction with finely divided metals, bromates, chlorates, chloramine monoxide, dichlorine oxide, iodates, metal nitrates, oxygen difluoride, peroxyformic acid, peroxyfuroic acid and trioxygen difluoride may result in an exotherm with ignition or explosion. Less active forms of carbon will ignite or explode on suitably intimate contact with oxygen, oxides, peroxides, oxosalts, halogens, interhalogens and other oxidising species. • Explosive reaction with ammonium nitrate, ammonium perchlorate, calcium hypochlorite and iodine pentoxide may occur following heating. Carbon may react violently with nitric acid and may be explosively reactive with nitrogen trifluoride at reduced temperatures. In the presence of nitrogen oxide, incandescence and ignition may occur. • Activated carbon, when exposed to air, represents a potential fire hazard due to a high surface area and adsorptive capacity. Freshly prepared material may ignite spontaneously in the presence of air especially at high humidity. Spontaneous combustion in air may occur at 90-100 deg. C. The presence of moisture in air facilitates the ignition. Drying oils and oxidising oils promote spontaneous heating and ignition; contamination with these must be avoided.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	isoprene/ isobutene copolymer (butyl rubber)	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available

US OSHA Permissible Exposure Limits (PELs) Table Z-1	isoprene/ isobutene copolymer (butyl rubber)	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	isoprene/ isobutene copolymer (butyl rubber)	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	isoprene/ isobutene copolymer (butyl rubber)	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	isoprene/ isobutene copolymer (butyl rubber)	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D - Substances with No Established RELs
US OSHA Permissible Exposure Limits (PELs) Table Z-1	kaolin	Kaolin- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	kaolin	Kaolin- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	kaolin	Kaolin (Respirable particulate matter)	2 mg/m3	Not Available	Not Available	A4
US NIOSH Recommended Exposure Limits (RELs)	kaolin	Kaolin - total	10 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	kaolin	Kaolin - respirable	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	kaolin	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	kaolin	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	isobutylene homopolymer	Butenes, all isomers	250 ppm	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	talc	Silicates (less than 1% crystalline silica): Talc (containing asbestos)	Not Available	Not Available	Not Available	Use asbestos limit
US ACGIH Threshold Limit Values (TLV)	talc	Talc: Containing no asbestos fibers (Respirable particulate matter)	2 mg/m3	Not Available	Not Available	A4
US ACGIH Threshold Limit Values (TLV)	talc	Talc: Containing asbestos fibers	Not Available	Not Available	Not Available	A1
US NIOSH Recommended Exposure Limits (RELs)	talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	coal, anthracite	Coal dust - Anthracite (Respirable particulate matter)	0.4 mg/m3	Not Available	Not Available	A4
US OSHA Permissible Exposure Limits (PELs) Table Z-1	coal, anthracite	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	coal, anthracite	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	coal, anthracite	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	coal, anthracite	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	coal, anthracite	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D - Substances with No Established RELs
US OSHA Permissible Exposure Limits (PELs) Table Z-1	zinc oxide	Zinc oxide fume	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	zinc oxide	Zinc oxide- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	zinc oxide	Zinc oxide- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	zinc oxide	Zinc oxide (Respirable particulate matter)	2 mg/m3	10 mg/m3	Not Available	Not Available

US NIOSH Recommended Exposure Limits (RELs)	zinc oxide	Zinc oxide - Fume	5 mg/m3	10 mg/m3	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	zinc oxide	Zinc oxide - Dust	5 mg/m3	Not Available	15 mg/m3	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	zinc oxide	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	zinc oxide	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	mica	Mica (Respirable particulate matter)	0.1 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	mica	Mica (containing less than 1% quartz)	3 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	mica	Silicates (less than 1% crystalline silica): Mica	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	mica	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	mica	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	magnesium carbonate	Magnesite- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	magnesium carbonate	Magnesite- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	magnesium carbonate	Magnesite - total	10 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	magnesium carbonate	Magnesite - respirable	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	magnesium carbonate	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	magnesium carbonate	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	chlorite	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	chlorite	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	chlorite	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	chlorite	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	chlorite	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D - Substances with No Established RELs

EMERGENCY LIMITS

Ingredient	TEEL-1	TEEL-2	TEEL-3
zinc oxide	10 mg/m3	15 mg/m3	2,500 mg/m3
mica	9 mg/m3	99 mg/m3	590 mg/m3
magnesium carbonate	45 mg/m3	260 mg/m3	1,600 mg/m3

Exposure controls

Appropriate engineering controls	Exhaust ventilation should be designed to prevent accumulation and recirculation in the workplace and safely remove carbon black from the air. Note: Wet, activated carbon removes oxygen from the air and thus presents a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such areas sampling and test procedures for low oxygen levels should be undertaken and control conditions set up to ensure ample oxygen availability.[Linde] Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
Individual protection measures, such as personal protective equipment	
Eye and face protection	• Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure. • Chemical goggles. Whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted.[AS/NZS 1337.1, EN166 or national equivalent] • Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection.

	• Alternatively a gas mask may replace splash goggles and face shields.
Skin protection	See Hand protection below
Hands/feet protection	• Elbow length PVC gloves **NOTE:** • The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. • Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. • polychloroprene. • nitrile rubber. • butyl rubber. • fluorocaoutchouc. • polyvinyl chloride.
Body protection	See Other protection below
Other protection	• Overalls. • P.V.C apron. • Barrier cream. • Skin cleansing cream.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

If inhalation risk above the TLV exists, wear approved dust respirator.
Use respirators with protection factors appropriate for the exposure level.

- Up to 5 X TLV, use valveless mask type; up to 10 X TLV, use 1/2 mask dust respirator
- Up to 50 X TLV, use full face dust respirator or demand type C air supplied respirator
- Up to 500 X TLV, use powered air-purifying dust respirator or a Type C pressure demand supplied-air respirator
- Over 500 X TLV wear full-face self-contained breathing apparatus with positive pressure mode or a combination respirator with a Type C positive pressure supplied-air full-face respirator and an auxiliary self-contained breathing apparatus operated in pressure demand or other positive pressure mode

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
· The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
· Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
· Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
· Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
· Use approved positive flow mask if significant quantities of dust becomes airborne.
· Try to avoid creating dust conditions.
Where significant concentrations of the material are likely to enter the breathing zone, a Class P3 respirator may be required.
Class P3 particulate filters are used for protection against highly toxic or highly irritant particulates.
Filtration rate: Filters at least 99.95% of airborne particles
Suitable for:
· Relatively small particles generated by mechanical processes eg. grinding, cutting, sanding, drilling, sawing.
· Sub-micron thermally generated particles e.g. welding fumes, fertilizer and bushfire smoke.
· Biologically active airborne particles under specified infection control applications e.g. viruses, bacteria, COVID-19, SARS
· Highly toxic particles e.g. Organophosphate Insecticides, Radionuclides, Asbestos
Note: P3 Rating can only be achieved when used with a Full Face Respirator or Powered Air-Purifying Respirator (PAPR). If used with any other respirator, it will only provide filtration protection up to a P2 rating.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Coloured tape with black adhesive with characteristic odour; insoluble in water.

Physical state	Manufactured	**Relative density (Water = 1)**	1-1.2
Odour	Characteristic	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	>450
pH (as supplied)	Not Applicable	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (mm2/s)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	>450	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Applicable
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Negligible
Vapour pressure (kPa)	Not Applicable	**Gas group**	Not Available
Solubility in water	Immiscible	**pH as a solution (1%)**	Not Applicable

Vapour density (Air = 1)	Not Available	**Total VOC %w/w**	Not Available
Heat of Combustion (kJ/g)	Not Available	**Ignition Distance (cm)**	Not Available
Flame Height (cm)	Not Available	**Flame Duration (s)**	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	**Enclosed Space Ignition Deflagration Density (g/m3)**	Not Available
Nanoform Solubility	Not Available	**Nanoform Particle Characteristics**	Not Available
Particle Size	Not Available		

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	• Unstable in the presence of incompatible materials. • Product is considered stable. • Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

a) Acute Toxicity	Based on available data, the classification criteria are not met.
b) Skin Irritation/Corrosion	Based on available data, the classification criteria are not met.
c) Serious Eye Damage/Irritation	Based on available data, the classification criteria are not met.
d) Respiratory or Skin sensitisation	Based on available data, the classification criteria are not met.
e) Mutagenicity	Based on available data, the classification criteria are not met.
f) Carcinogenicity	Based on available data, the classification criteria are not met.
g) Reproductivity	Based on available data, the classification criteria are not met.
h) STOT - Single Exposure	Based on available data, the classification criteria are not met.
i) STOT - Repeated Exposure	Based on available data, the classification criteria are not met.
j) Aspiration Hazard	Based on available data, the classification criteria are not met.

Inhaled	Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures. Impurities found in carbons, including iodine, can be toxic. Carbon dusts in the air may cause irritation of the mucous membranes, eyes and skin.
Ingestion	Ingestion of finely divided carbon may produce gagging and constipation. Aspiration does not appear to be a concern as the material is generally regarded as inert and is often used as a food additive.
Skin Contact	The material is not classified as a skin irritant under Regulation (EC) No 1272/2008 (CLP), as amended. However, abrasive damage may result from prolonged exposure. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	There is some evidence to suggest that this material can cause eye irritation and damage in some persons. Eyes exposed to carbon particulates may be liable to irritation and burning. These can remain in the eye causing inflammation lasting weeks, and can cause permanent dark dotty discolouration.
Chronic	Coal workers pneumoconiosis exists in two forms, simple and complicated. The latter is often referred to as progressive massive fibrosis, and develops in lungs already affected by simple pneumoconiosis. Studies on the harmful effects of dust in bituminous coal mines have shown that coal reduces the effect of silica (quartz) on lung tissues. Long term exposure to dust is considered an aggravating factor for chronic simple bronchitis. There is no consistent relationship between coal mine dust and lung cancer, but coal miners do have a higher rate of developing stomach cancer. Coal mine dust can damage DNA by trigger the formation of reactive oxygen species, which may also lead to emphysema. Chronic dust inhalation of kaolin, can cause kaolinosis from kaolin deposition in the lungs causing distinct lung markings, abnormal inflation of air sacs, and chronic lung diseases (nodular pneumoconiosis).This condition is made worse by long duration of occupational exposure and pre-existing chest infection. Pre-employment screening is recommended. Prolonged inhalation of high concentrations of magnesite (magnesium carbonate) dust caused pulmonary deposition and retention. Roasted magnesite (magnesium oxide) produced a greater degree of fibrosis than did crude magnesite. No cases of human systemic poisoning due to exposure to magnesite have been recorded. Pneumoconiosis was found in about 2% of workers exposed to high concentrations of dust from crude or roasted magnesite that also contained 1-3% silicon dioxide. Exposure periods ranged from 6-20 years. This condition occurred mainly in workers exposed to roasted (calcined) magnesite. Crystalline silicas activate the inflammatory response of white blood cells after they injure the lung epithelium. Chronic exposure to crystalline silicas reduces lung capacity and predisposes to chest infections. There is insufficient evidence to suggest that exposure to carbon black causes increased susceptibility to cancer or other ill effects. Some lung changes can occur after a prolonged period of exposure as well as increased strain on the right side of the heart. Overexposure to the breathable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity and chest infections. Repeated exposures in the workplace to high levels of fine-divided dusts may produce a condition known as pneumoconiosis, which is the lodgement of any inhaled dusts in the lung, irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50000 inch) are present. Lung shadows are seen in the X-ray.

Tapecoat High Temperature Butyl Tapes	**TOXICITY**	**IRRITATION**

	Not Available	Not Available
isoprene/ isobutene copolymer (butyl rubber)	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
kaolin	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
isobutylene homopolymer	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg [1]	Eye: no adverse effect observed (not irritating) [1]
	Oral (Rat) LD50: >2000 mg/kg [1]	Skin: no adverse effect observed (not irritating) [1]
talc	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg [1]	Eye: no adverse effect observed (not irritating) [1]
	Inhalation (Rat) LC50: >2.1 mg/l4h [1]	Skin (Human): 300ug/3D - Mild
	Oral (Rat) LD50: >5000 mg/kg [1]	Skin: no adverse effect observed (not irritating) [1]
coal, anthracite	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
zinc oxide	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg [1]	Eye (Rodent - rabbit): 500mg/24H - Mild
	Inhalation (Rat) LC50: >1.79 mg/l4h [1]	Eye: no adverse effect observed (not irritating) [1]
	Oral (Rat) LD50: >5000 mg/kg [1]	Skin (Human): 300ug/3D - Mild
		Skin (Rodent - rabbit): 500mg/24H - Mild
		Skin: no adverse effect observed (not irritating) [1]
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >10000 mg/kg [2]	Eye (Rodent - rabbit): 100mg/24H - Moderate
	Oral (Mouse) LD50; >5000 mg/kg [1]	Eye: no adverse effect observed (not irritating) [1]
		Skin: no adverse effect observed (not irritating) [1]
mica	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
magnesium carbonate	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50: >2000 mg/kg [1]	Eye: no adverse effect observed (not irritating) [1]
		Skin: no adverse effect observed (not irritating) [1]
chlorite	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
Legend:	***1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances***	

kaolin	For bentonite clays: Bentonite (CAS No. 1302-78-9) consists of a group of clays formed by crystallization of vitreous volcanic ashes that were deposited in water. The expected acute oral toxicity of bentonite in humans is very low. However, when bentonite had been used as a prophy paste, larger amounts caused severe eye injury, including abscesses behind the cornea. In animals, large amounts caused decreased growth, muscle weakness and death with marked changes in both calcium and phosphorus metabolism. Bentonite, in animals, caused lung scarring if instilled into the windpipe. Bentonite clay dust is believed to be responsible for asthma in workers in an American processing plant. Swallowing bentonite without adequate liquids may result in intestinal obstruction in humans. Chronically swallowing bentonite has been reported to cause muscle inflammation.
zinc oxide	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
talc	The overuse of talc in nursing infants has resulted in respiratory damage causing fluid in the lungs and lung inflammation which may lead to death within hours of inhalation. Long-term exposure can also cause a variety of respiratory symptoms. The substance is classified by IARC as Group 3: **NOT** classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	Liver changes, changes in blood cell count, pigmented/ nucleated red blood cells, changes in testicular weight recorded. Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. for 2,2'-methylenebis(6-tert-butyl-4-methylphenol) (syn 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol) **Acute toxicity** of this substance is low; oral LD50 values in animals is greater than 5,000 mg/kg. The substance is not irritating to skin and moderately irritating to eyes. There is no skin sensitisation in humans. **Repeat dose toxicity:** In repeated dose toxicity studies, including a rat 28-day repeated dose toxicity test [Japan TG], a preliminary reproduction toxicity screening test [OECD TG 421] and a rat 18 month chronic toxicity test, effects on sperm in the cauda epididymis and

	histopathological changes in the testis, such as degeneration of step 19 spermatids and vacuolation of Sertoli cells, were observed in the 42.3 mg/kg and higher dose groups. Based on the above results, the NOAEL for repeated dose toxicity is considered to be 12.5 mg/kg/day. **Reproductive and developmental toxicity:** In a reproductive/developmental toxicity study [OECD TG 421], the effects on reproductive parameters, such as decrease in number of corpora lutea, implantation scars and pups born, were observed in the 200 mg/kg/day and higher dose groups but not 50 mg/kg/day. Therefore, NOAEL for female reproductive toxicity is considered to be 50 mg/kg/day. However, NOAEL for male reproductive toxicity is 12.5 mg/kg/day because of the testicular toxicity as described above. As for the developmental toxicity, low body weight gain of offspring and increased number of stillbirths were observed at 800 but not 200 mg/kg/day. The teratogenic effects were not observed in a study with rats up to 375 mg/kg/day. Based on these findings, the NOAEL for developmental toxicity is considered to be 200 mg/kg/day. **Genotoxicity:** Three bacterial reverse mutation tests and mammalian chromosomal tests with and without metabolic activation show negative results [OECD TG 471, 472, 473]. No tumors were observed in a 18-month chronic feeding study with rats up to 1,000 ppm, however this study is not qualified to be regarded as a carcinogenicity study. Therefore, no conclusion could be reached on the carcinogenicity. verse effects of acyltransferase inhibitors vary significantly by specific enzyme and drug class; acetylcholinesterase inhibitors (AChEIs) can cause gastrointestinal issues, bradycardia, and bronchospasm, while some ghrelin O-acyltransferase (GOAT) inhibitors show promise with fewer side effects like headache and gastrointestinal disorders, and early cholesterol acyltransferase (ACAT) inhibitors studies suggest increased LDL cholesterol. The observed adverse events are often due to the enzyme's role, such as AChEIs increasing acetylcholine and thus parasympathetic effects, or GOAT inhibitors impacting hunger signals GOAT inhibition has been shown to result in severe growth retardation, impaired growth hormone release, and mild phenotypes when the ghrelin gene is absent. Given ghrelin's role in appetite stimulation, fat storage, and glucose control, GOAT inhibitors theoretically could lead to increased appetite, weight gain, and changes in blood glucose levels, although clinical data is limited. The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Data show that acute toxicity following oral and topical use of hindered phenols is low. They are not proven to cause mutations. However, long term use may affect the liver, thyroid, kidney and lymph nodes. Liver tumours have been reported.
talc & mica	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.
isoprene/ isobutene copolymer (butyl rubber) & kaolin & isobutylene homopolymer & talc & mica & chlorite	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	**Carcinogenicity**	✗
Skin Irritation/Corrosion	✗	**Reproductivity**	✗
Serious Eye Damage/Irritation	✗	**STOT - Single Exposure**	✗
Respiratory or Skin sensitisation	✗	**STOT - Repeated Exposure**	✗
Mutagenicity	✗	**Aspiration Hazard**	✗

Legend: ✗ *– Data either not available or does not fill the criteria for classification*
✔ *– Data available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Tapecoat High Temperature Butyl Tapes

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

isoprene/ isobutene copolymer (butyl rubber)

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

kaolin

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

isobutylene homopolymer

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96h	Fish	>5600mg/L	4

talc

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
EC50	96h	Algae or other aquatic plants	7202.7mg/l	2
LC50	96h	Fish	89581.016mg/l	2

coal, anthracite

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

zinc oxide

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
EC50	72h	Algae or other aquatic plants	0.022mg/L	2
BCF	1344h	Fish	19-110	7
EC50	48h	Crustacea	0.105mg/L	2

	EC10(ECx)	168h	Algae or other aquatic plants	0.003mg/L	2
	EC50	96h	Algae or other aquatic plants	0.042mg/L	2
	ErC50	72h	Algae or other aquatic plants	0.62mg/l	2
	LC50	96h	Fish	0.102mg/L	2

2,2'-methylenebis(6-tert-butyl-4-methylphenol)					
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	EC50	72h	Algae or other aquatic plants	>5mg/l	2
	BCF	1440h	Fish	320-780	7
	EC50	48h	Crustacea	>4.8mg/l	2
	NOEC(ECx)	504h	Crustacea	0.34mg/l	2
	LC50	96h	Fish	>5mg/l	2

mica					
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

magnesium carbonate					
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	EC50	72h	Algae or other aquatic plants	>18.5mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	18.5mg/l	2
	LC50	96h	Fish	2120mg/l	2

chlorite					
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. US EPA, Ecotox database - Aquatic Toxicity Data 4. ECETOC Aquatic Hazard Assessment Data 5. NITE (Japan) - Bioconcentration Data 6. METI (Japan) - Bioconcentration Data 7. Vendor Data 8. User defined data*

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isobutylene homopolymer	LOW	LOW
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	HIGH	HIGH
magnesium carbonate	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
isobutylene homopolymer	LOW (LogKOW = 17.14)
zinc oxide	LOW (BCF = 217)
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	MEDIUM (BCF = 840)
magnesium carbonate	LOW (LogKOW = -0.4605)

Mobility in soil

Ingredient	Mobility
isobutylene homopolymer	LOW (KOC = 35.04)
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	LOW (KOC = 4297000)
magnesium carbonate	HIGH (KOC = 1)

Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	
	• Containers may still present a chemical hazard/ danger when empty. • Return to supplier for reuse/ recycling if possible. Otherwise: • If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. • Where possible retain label warnings and SDS and observe all notices pertaining to the product. • **DO NOT** allow wash water from cleaning or process equipment to enter drains. • It may be necessary to collect all wash water for treatment before disposal. • In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. • Where in doubt contact the responsible authority.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO

Shipping container, transport vehicle placarding, and labeling may vary from the below information. This depends on the quantity shipped, the applicability of excepted quantity requirements, limited quantity requirements, and/or special provisions according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate labels and markings in accordance with applicable transport regulations.

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
isoprene/ isobutene copolymer (butyl rubber)	Not Applicable
kaolin	Not Applicable
isobutylene homopolymer	Not Applicable
talc	Not Applicable
coal, anthracite	Not Applicable
zinc oxide	Not Applicable
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	Not Applicable
mica	Not Applicable
magnesium carbonate	Not Applicable
chlorite	Not Applicable

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
isoprene/ isobutene copolymer (butyl rubber)	Not Applicable
kaolin	Not Applicable
isobutylene homopolymer	Not Applicable
talc	Not Applicable
coal, anthracite	Not Applicable
zinc oxide	Not Applicable
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	Not Applicable
mica	Not Applicable
magnesium carbonate	Not Applicable
chlorite	Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

ISOPRENE/ ISOBUTENE COPOLYMER (BUTYL RUBBER) IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US NIOSH Recommended Exposure Limits (RELs)
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

KAOLIN IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US ACGIH Threshold Limit Values (TLV)
- US NIOSH Recommended Exposure Limits (RELs)
- US - New Jersey Right to Know Hazardous Substances
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- Chemical Footprint Project - Chemicals of High Concern List
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
- US EPA Pesticide Chemical Search - Conventional Chemical
- US EPA Pesticide Chemical Search - Biopesticides
- US - Pennsylvania - Hazardous Substance List

ISOBUTYLENE HOMOPOLYMER IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US ACGIH Threshold Limit Values (TLV)
- US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Flammables
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US EPA Pesticide Chemical Search - Conventional Chemical
- US - Pennsylvania - Hazardous Substance List

TALC IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US ACGIH Threshold Limit Values (TLV)
- US NIOSH Recommended Exposure Limits (RELs)
- US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens
- US - New Jersey Right to Know Hazardous Substances
- US - Massachusetts - Right To Know Listed Chemicals
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- Chemical Footprint Project - Chemicals of High Concern List
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2A: Probably carcinogenic to humans
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
- US - Pennsylvania - Hazardous Substance List

COAL, ANTHRACITE IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US ACGIH Threshold Limit Values (TLV)
- US NIOSH Recommended Exposure Limits (RELs)
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

ZINC OXIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US ACGIH Threshold Limit Values (TLV)
- US NIOSH Recommended Exposure Limits (RELs)
- US DOE Temporary Emergency Exposure Limits (TEELs)
- US CWA (Clean Water Act) - Priority Pollutants
- US CWA (Clean Water Act) - Toxic Pollutants
- US EPCRA Section 313 Chemical List
- US - New Jersey Right to Know Hazardous Substances
- US EPA Integrated Risk Information System (IRIS)
- US - Massachusetts - Right To Know Listed Chemicals
- US New York City Community Right-to-Know: List of Hazardous Substances
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
- US EPA Pesticide Chemical Search - Conventional Chemical
- US EPA Pesticide Chemical Search - Antimicrobial
- US - Pennsylvania - Hazardous Substance List

2,2'-METHYLENEBIS(6-TERT-BUTYL-4-METHYLPHENOL) IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

MICA IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US ACGIH Threshold Limit Values (TLV)
- US NIOSH Recommended Exposure Limits (RELs)
- US DOE Temporary Emergency Exposure Limits (TEELs)
- US - New Jersey Right to Know Hazardous Substances
- US - Massachusetts - Right To Know Listed Chemicals
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
- US - Pennsylvania - Hazardous Substance List

MAGNESIUM CARBONATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US NIOSH Recommended Exposure Limits (RELs)
- US DOE Temporary Emergency Exposure Limits (TEELs)
- US - New Jersey Right to Know Hazardous Substances
- US - Massachusetts - Right To Know Listed Chemicals
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
- US - Pennsylvania - Hazardous Substance List

CHLORITE IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US OSHA Permissible Exposure Limits (PELs) Table Z-3
- US NIOSH Recommended Exposure Limits (RELs)
- International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

Additional Regulatory Information

Not Applicable

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES

Flammable (Gases, Aerosols, Liquids, or Solids)	No

Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flam mable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exp osure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitizatio n	No
Serious eye damage or eye irrit ation	No
Specific target organ toxicity (si ngle or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classifi ed	No

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

None Reported

Additional Federal Regulatory Information

Not Available

US. EPCRA SECTION 313 TOXIC RELEASE INVENTORY (TRI) (40 CFR 372)

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know-Act of 1986 (40 CFR 372):

CAS No	%[weight]	Name
1314-13-2	1-10	zinc oxide

This information must be included in all SDSs that are copied and distributed for this material.

State Regulations

US. CALIFORNIA PROPOSITION 65

None Reported

Additional State Regulatory Information

Not Available

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-I ndustrial Use	No (chlorite)
Canada - DSL	No (chlorite)
Canada - NDSL	No (isoprene/ isobutene copolymer (butyl rubber), kaolin, isobutylene homopolymer, talc, coal, anthracite, 2,2'-methylenebis(6-tert-butyl-4-methy lphenol), mica, magnesium carbonate, chlorite)
China - IECSC	No (coal, anthracite)
Colombia - Colombia National I ndustrial Chemicals Inventory	No (isoprene/ isobutene copolymer (butyl rubber), kaolin, isobutylene homopolymer, talc, coal, anthracite, zinc oxide, 2,2'-methylenebis(6-tert-bu tyl-4-methylphenol), mica, magnesium carbonate, chlorite)
Europe - EINEC / ELINCS / NL P	No (isoprene/ isobutene copolymer (butyl rubber), mica)
Japan - ENCS	No (kaolin, talc, coal, anthracite, mica, chlorite)
Korea - KECI	Yes
New Zealand - NZIoC	Yes

Philippines - PICCS	Yes
USA - TSCA	TSCA Inventory 'Active' substance(s) (isoprene/ isobutene copolymer (butyl rubber), kaolin, isobutylene homopolymer, talc, coal, anthracite, zinc oxide, 2,2'-methylenebis(6-tert-butyl-4-methylphenol), magnesium carbonate); No (mica, chlorite)
Taiwan - TCSI	Yes
Mexico - INSQ	No (isoprene/ isobutene copolymer (butyl rubber), chlorite)
Vietnam - NCI	No (coal, anthracite)
Russia - FBEPH	No (chlorite)
UAE - Control List (Banned/Restricted Substances)	No (isoprene/ isobutene copolymer (butyl rubber), kaolin, isobutylene homopolymer, talc, coal, anthracite, zinc oxide, 2,2'-methylenebis(6-tert-butyl-4-methylphenol), mica, magnesium carbonate, chlorite)
Legend:	***Yes = All CAS declared ingredients are on the inventory*** ***No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.***

SECTION 16 OTHER INFORMATION

Revision Date	08/09/2026
Initial Date	08/09/2026

SDS Version Summary

Version	Issue Date	Sections Updated
2.1	08/09/2026	Physical and chemical properties - Appearance,Toxicological information - Chronic Health,Physical and chemical properties - Physical Properties,Hazards identification - Classification
3.1	29/10/2026	Physical and chemical properties - Appearance,Composition / information on ingredients - Ingredients

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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