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Royston Butyl Adhesive

CHASE CORPORATION Blawnox Plant

Chemwatch: 32202-70

Version No: 2.1

Safety Data Sheet according to OSHA HazCom Standard (2024) requirements

Initial Date: 09/09/2026

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Print Date: 15/10/2026

S.GHS.USA.EN.E.B

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Royston Butyl Adhesive
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	BMS125

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	CHASE CORPORATION Blawnox Plant
Address	128 1st Street, Blawnox 15238-3223 PA United States of America
Telephone	1-866-932-0800
Fax	Not Available
Website	Not Available
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	Reproductive Toxicity Category 1B
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Label elements

Hazard pictogram(s)	
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SIGNAL WORD

DANGER

Hazard statement(s)

H360	May damage fertility or the unborn child.
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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

P201	Obtain special instructions before use.
P280	Wear protective gloves and protective clothing.
P202	Do not handle until all safety precautions have been read and understood.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
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Precautionary statement(s) Storage

P405	Store locked up.
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Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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No further product hazard information.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
1332-58-7	10-30	kaolin
Not Available	10-30	ingredients, proprietary
14807-96-6	10-13	talc
8029-10-5	1-10	coal ,anthracite
9003-27-4	10-<20	isobutylene homopolymer
119-47-1	<1	2,2'-methylenebis(6-tert-butyl-4-methylphenol)
1333-86-4	1-<5	carbon black
1314-13-2	1-<5	zinc oxide
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: • Wash out immediately with fresh 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. • Seek medical attention without delay; if pain persists or recurs seek medical attention. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: • Flush skin and hair with running water (and soap if available). • Seek medical attention in event of irritation. 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, aerosols or combustion products are inhaled remove from contaminated area. • Other measures are usually unnecessary.
Ingestion	• If swallowed do NOT induce vomiting.

- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

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/m ³ (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 waste regularly and abnormal 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.
- Vacuum up or sweep up. **NOTE:** Vacuum cleaner must be fitted with an exhaust micro filter (H-Class HEPA type) (consider explosion-proof machines designed to be grounded during storage and use).

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.
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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	Avoid strong bases.

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	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 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 (Res	2 mg/m3	Not Available	Not Available	A4

		pirable particulate matter)				
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 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-1	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	carbon black	Carbon black (Inhalable particulate matter)	3 mg/m3	Not Available	Not Available	A3
US NIOSH Recommended Exposure Limits (RELs)	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Ca; TWA 0.1 mg PAHs/m3 [Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)]; See Appendix A - NIOSH Potential Occupational Carcinogens; See Appendix C - Supplementary Exposure Limits
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	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	carbon black	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	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

EMERGENCY LIMITS						
Ingredient	TEEL-1		TEEL-2		TEEL-3	
carbon black	9 mg/m3		99 mg/m3		590 mg/m3	
zinc oxide	10 mg/m3		15 mg/m3		2,500 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 side shields. • Chemical goggles.[AS/NZS 1337.1, EN166 or national equivalent] • Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.
Skin protection	See Hand protection below
Hands/feet protection	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. • fluorocautchouc. • 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.

Class P2 particulate filters are used for protection against mechanically and thermally generated particulates or both.

P2 is a respiratory filter rating under various international standards, Filters at least 94% 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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Black solid; insoluble in water.		
Physical state	Solid	Relative density (Water = 1)	1
Odour	Not Available	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)	Not Available
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	There is sufficient evidence to classify this material as toxic to reproductivity
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	There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. 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	The material is not expected to produce harmful effects following ingestion based on the available information. However, the material may still cause adverse health effects following ingestion, particularly in individuals with pre-existing organ damage (e.g. liver or kidney impairment). Gastrointestinal discomfort may occur and may result in nausea and vomiting. In an occupational setting, ingestion of incidental quantities should be avoided, and good hygiene practices should be followed to prevent ingestion.
Skin Contact	The material is not classified as a skin irritant under Regulation (EC) No 1272/2008 (CLP), as amended. Nevertheless, 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	Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material. Ample evidence exists, from results in experimentation, that developmental disorders are directly caused by human exposure to the material. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. 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.
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Royston Butyl Adhesive	TOXICITY	IRRITATION
	Not Available	Not Available
kaolin	TOXICITY	IRRITATION
	Not Available	Not Available
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
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]
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]
carbon black	TOXICITY	IRRITATION
	Dermal (rabbit) 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]
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]
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	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. 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.
carbon black	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
kaolin & talc & isobutylene homopolymer & carbon black	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					
Royston Butyl Adhesive	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
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
isobutylene homopolymer	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96h	Fish	>5600mg/L	4

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
carbon black	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
	EC50	48h	Crustacea	33.076-41.968mg/l	4
	NOEC(ECx)	24h	Crustacea	3200mg/l	1
	LC50	96h	Fish	>100mg/l	2
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
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

Bioaccumulative potential

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

Mobility in soil

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

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.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

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Marine Pollutant	NO
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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
kaolin	Not Applicable
talc	Not Applicable
coal, anthracite	Not Applicable
isobutylene homopolymer	Not Applicable
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	Not Applicable
carbon black	Not Applicable
zinc oxide	Not Applicable

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
kaolin	Not Applicable
talc	Not Applicable
coal, anthracite	Not Applicable
isobutylene homopolymer	Not Applicable
2,2'-methylenebis(6-tert-butyl-4-methylphenol)	Not Applicable
carbon black	Not Applicable
zinc oxide	Not Applicable

SECTION 15 REGULATORY INFORMATION

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

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

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

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

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

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

CARBON BLACK 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 - 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
- US - California Proposition 65 - Carcinogens
- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
- US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List
- US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
- US - Pennsylvania - Hazardous Substance List

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

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 flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	Yes
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No

Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	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-<5	zinc oxide

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

State Regulations

US. CALIFORNIA PROPOSITION 65

WARNING: This product can expose you to chemicals including **carbon black**, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

Additional State Regulatory Information

Not Available

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (kaolin, talc, coal, anthracite, isobutylene homopolymer, 2,2'-methylenebis(6-tert-butyl-4-methylphenol), carbon black)
China - IECSC	No (coal, anthracite)
Colombia - Colombia National Industrial Chemicals Inventory	No (kaolin, talc, coal, anthracite, isobutylene homopolymer, 2,2'-methylenebis(6-tert-butyl-4-methylphenol), carbon black, zinc oxide)
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (kaolin, talc, coal, anthracite)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	All chemical substances in this product have been designated as TSCA Inventory 'Active'
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	No (coal, anthracite)
Russia - FBEPH	Yes
UAE - Control List (Banned/Restricted Substances)	No (kaolin, talc, coal, anthracite, isobutylene homopolymer, 2,2'-methylenebis(6-tert-butyl-4-methylphenol), carbon black, zinc oxide)
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	09/09/2026
Initial Date	09/09/2026

SDS Version Summary

Version	Issue Date	Sections Updated
0.0	01/01/0001	

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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