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Royston Handy Cap IP and IPXL

CHASE CORPORATION Blawnox Plant

Chemwatch: 32205-14

Version No: 2.1

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

Initial Date: 03/09/2026

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Print Date: 15/10/2026

S.GHS.USA.EN.E.B

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Royston Handy Cap IP and IPXL
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	HCAPIP

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	Sensitisation (Skin) Category 1
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Label elements

Hazard pictogram(s)	
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SIGNAL WORD

WARNING

Hazard statement(s)

H317	May cause an allergic skin reaction.
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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

P280	Wear protective gloves and protective clothing.
P261	Avoid breathing dust/fumes.
P272	Contaminated work clothing must not be allowed out of the workplace.

Precautionary statement(s) Response

P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

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
Not Available	>60	ingredients, proprietary
9003-27-4	5-<10	isobutylene homopolymer
62258-49-5	10-<20	alpha-methylstyrene/ amylene/ piperylene copolymer
9010-79-1	1-<5	ethylene/ propylene copolymer
9003-07-0	1-<5	polypropylene
1333-86-4	1-<5	carbon black
68784-69-0	1-<5	bisphenol A, / isobutylene/ styrene copolymer
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 eyes: - Wash out immediately with water. - If irritation continues, seek medical attention. - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. - Generally not applicable.
Skin Contact	If skin contact occurs: - Immediately remove all contaminated clothing, including footwear. - 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. - Generally not applicable.
Inhalation	- If fumes, aerosols or combustion products are inhaled remove from contaminated area. - Other measures are usually unnecessary.

	• Generally not applicable.
Ingestion	• Generally not applicable.

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

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

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
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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. Slight hazard when exposed to heat, flame and oxidisers.
Fire/Explosion Hazard	• Combustible. • Slight fire hazard when exposed to heat or flame. • Heating may cause expansion or decomposition leading to violent rupture of containers. • On combustion, may emit toxic fumes of carbon monoxide (CO). • May emit acrid smoke. • Mists containing combustible materials may be explosive. Combustion products include: • carbon monoxide (CO) • carbon dioxide (CO2) • other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes. Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place. Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard.

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. • Secure load if safe to do so. • Bundle/collect recoverable product. • Collect remaining material in containers with covers for disposal.
Major Spills	• Clean up all spills immediately. • Wear protective clothing, safety glasses, dust mask, gloves. • Secure load if safe to do so. Bundle/collect recoverable product. • Use dry clean up procedures and avoid generating dust. • Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Minor hazard. • Clear area of personnel. • Alert Fire Brigade and tell them location and nature of hazard. • Control personal contact with the substance, by using protective equipment as required. • Prevent spillage from entering drains or water ways. • Contain spill with sand, earth or vermiculite.

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	• Avoid skin contact, including inhalation. • Wear protective clothing when risk of exposure occurs. • Use in a well-ventilated area.
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	- 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.
Other information	Store away from incompatible materials.

Conditions for safe storage, including any incompatibilities

Suitable container	Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards. If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler.
Storage incompatibility	Diisobutylene: - may form unstable or explosive peroxides - is incompatible with strong acids, strong oxidisers - flow or agitation may generate electrostatic charges due to low conductivity - Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
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	alpha-methylstyrene/ amylene/ piperylene copolymer	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	alpha-methylstyrene/ amylene/ piperylene copolymer	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	alpha-methylstyrene/ amylene/ piperylene copolymer	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	alpha-methylstyrene/ amylene/ piperylene copolymer	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	alpha-methylstyrene/ amylene/ piperylene copolymer	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	ethylene/ propylene copolymer	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	ethylene/ propylene copolymer	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	ethylene/ propylene copolymer	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	ethylene/ propylene copolymer	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	ethylene/ propylene copolymer	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	polypropylene	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	polypropylene	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	polypropylene	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	polypropylene	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	polypropylene	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	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 - NI OSH 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

EMERGENCY LIMITS

Ingredient	TEEL-1	TEEL-2	TEEL-3
polypropylene	5.2 mg/m3	58 mg/m3	350 mg/m3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3

Exposure controls

Appropriate engineering controls	Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment.
Individual protection measures, such as personal protective equipment	
Eye and face protection	No special equipment required due to the physical form of the product. - 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	- Wear general protective gloves, eg. light weight rubber 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.
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)

Respiratory protection not normally required due to the physical form of the product.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Gray to white solid with characteristic odour.				
Physical state	Manufactured		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 Applicable	
Initial boiling point and boiling range (°C)	Not Available		Molecular weight (g/mol)	Not Applicable	
Flash point (°C)	220		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 Applicable	
Vapour pressure (kPa)	Not Applicable		Gas group	Not Available	
Solubility in water	Not Available		pH as a solution (1%)	Not Available	
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	Product is considered stable and 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	There is sufficient evidence to classify this material as sensitising to skin or the respiratory system
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	The material is not classified as causing respiratory irritation under Regulation (EC) No 1272/2008 (CLP), as amended. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be implemented in an occupational setting.
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	There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. When patches containing undiluted material were applied to human volunteers, some reported a burning sensation. No skin irritation was evident on the following day.
Eye	Although the material is not classified as an eye irritant under Regulation (EC) No 1272/2008 (CLP), as amended, direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Based on experience with similar materials, there is a possibility that exposure to the material may reduce fertility in humans at levels which do not cause other toxic effects. Bisphenol A may have effects similar to female sex hormones and when administered to pregnant women, may damage the foetus. It may also damage male reproductive organs and sperm. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.

Royston Handy Cap IP and IPXL	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]
alpha-methylstyrene/ amylene/ piperylene copolymer	TOXICITY	IRRITATION
	Not Available	Not Available
ethylene/ propylene copolymer	TOXICITY	IRRITATION
	Not Available	Not Available
polypropylene	TOXICITY	IRRITATION
	Oral (Mouse) LD50: 3200 mg/kg ^[2]	Not Available
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]
bisphenol A, / isobutylene/ styrene copolymer	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
ethylene/ propylene copolymer	Occupational exposures in the rubber-manufacturing industry are carcinogenic to humans (Group 1).IARC Working Groups There is sufficient evidence in humans for the carcinogenicity of occupational exposures in the rubber-manufacturing industry. Occupational exposures in the rubber-manufacturing industry cause leukaemia, lymphoma, and cancers of the urinary bladder, lung, and stomach. Also, a positive association has been observed between occupational exposures in the rubber-manufacturing industry and cancers of the prostate, oesophagus, and larynx.IARC Working Group. The multiple genetic and cytogenetic effects observed among workers employed in the rubber-manufacturing industry provide strong evidence to support genotoxicity as one mechanism for the observed increase in cancer risks. However, due to the complexity and changing nature of the exposure mixture and the potential interactions between exposures in the rubber-manufacturing industry, other mechanisms are also likely to play a role. While it is clear that exposure to some agents in the rubber-manufacturing industry has been reduced over time, the results of recent cytogenetic studies continue to raise concerns about cancer risks. The rubber-manufacturing industry has used and still uses a wide variety of substances that belong to many different chemical categories, e.g. carbon black, aromatic amines, PAH, N-nitrosamines, mineral oils, other volatile organic compounds from curing fumes, trace amounts of monomers from synthetic rubber like 1,3-butadiene, acetonitrile, styrene, vinyl chloride, ethylene oxide, etc.. For this reason, it has been difficult to relate the observed cancer hazards in the rubber-manufacturing industry to exposure to specific chemicals.
polypropylene	* For pyrolyzate For poly-alpha-olefins (PAOs): PAOs are highly branched, isoparaffinic chemicals produced by oligomerisation of 1-octene, 1-decene and/or 1-dodecene. The crude polyalphaolefin mixture is then distilled into appropriate product fractions to meet specific viscosity specifications and hydrogenated. In existing data, there appears to be no data to show that these structural analogs cause health effects. In addition, there is evidence in the literature that alkanes with 30 or more carbon atoms are unlikely to be absorbed when given by mouth. The physical and chemical properties make it unlikely that significant absorption into the body will occur. There are also no functional groups on PAO molecules that are biologically active. PAOs also have low volatility, so that exposure is unlikely to occur by inhalation. The high viscosity of these substances also makes it hard to generate a high concentration of breathable particles in air. Acute toxicity: Animal testing shows that PAOs have relatively low acute toxicity. Repeat dose toxicity: Animal testing shows that PAOs show low repeat dose toxicity – some increased scaling of the skin occurred, with skin inflammation, after exposure at high doses. Reproductive toxicity: Animal testing suggested that application of PAO to skin did not impair reproductive performance. Genetic toxicity: Testing has not shown any evidence that PAOs cause mutations or chromosomal aberrations. Cancer-causing potentials: Animal testing has not shown any propensity to cause tumours. While alpha-olefin polymers have similar properties to mineral oils, they do not contain polycyclic aromatic hydrocarbons, or other known cancer-causing materials. 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.
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.
bisphenol A, / isobutylene/ styrene copolymer	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. The chemical structure of hydroxylated diphenylalkanes or bisphenols consists of two phenolic rings joined together through a bridging carbon. This class of endocrine disruptors that mimic oestrogens is widely used in industry, particularly in plastics. Bisphenol A (BPA) and some related compounds exhibit oestrogenic activity in human breast cancer cell line MCF-7, but there were remarkable differences in activity. Several derivatives of BPA exhibited significant thyroid hormonal activity towards rat pituitary cell line GH3, which releases growth hormone in a thyroid hormone-dependent manner. However, BPA and several other derivatives did not show such activity. Results suggest that the 4-hydroxyl group of the A-phenyl ring and the B-phenyl ring of BPA derivatives are required for these hormonal activities, and substituents at the 3,5-positions of the phenyl rings and the bridging alkyl moiety markedly influence the activities. Bisphenols promoted cell proliferation and increased the synthesis and secretion of cell type-specific proteins. When ranked by proliferative potency, the longer the alkyl substituent at the bridging carbon, the lower the concentration needed for maximal cell yield; the most active compound contained two propyl chains at the bridging carbon. Bisphenols with two hydroxyl groups in the para position and an angular configuration are suitable for appropriate hydrogen bonding to the acceptor site of the oestrogen receptor. In vitro cell models were used to evaluate the ability of 22 bisphenols (BPs) to induce or inhibit estrogenic and androgenic activity. BPA, Bisphenol AF (BPAF), bisphenol Z (BPZ), bisphenol C (BPC), tetramethyl bisphenol A (TMBPA), bisphenol S (BPS), bisphenol E (BPE), 4,4-bisphenol F (4,4-BPF), bisphenol AP (BPAP), bisphenol B (BPB), tetrachlorobisphenol A (TCBPA), and benzylparaben (PHBB) induced estrogen receptor (ER)alpha and/or ERbeta-mediated activity. With the exception of BPS, TCBPA, and PHBB, these same BPs were also androgen receptor (AR) antagonists. Only 3 BPs were found to be ER antagonists. Bisphenol P (BPP) selectively inhibited ERbeta-mediated activity and 4-(4-phenylmethoxyphenyl)sulfonylphenol (BPS-MPE) and 2,4-bisphenol S (2,4-BPS) selectively inhibited ERalpha-mediated activity. None of the BPs induced AR-mediated activity. for diisobutylene (2,4,4-trimethylpentene) (DIB): The substance is of low acute oral, dermal and inhalation toxicity in animals (LD50 values of greater than 2000 mg/kg bw for the oral and dermal routes with no specific signs of toxicity; LC50 values of ca. 30 mg/L/4 hrs in rats), but aspiration was considered a significant hazard for C6-C14 olefins. DIB is slightly irritating to the skin and eyes of rabbits, and has been shown to irritate human nasal mucosa and throat at a concentration of 0.47 mg/L. Three out of 20 test animals were tested positive in a skin sensitisation test according to OECD TG 406 (maximisation test according to Magnusson and Kligman). Data on the sensitisation potential in humans were not available. Liver and kidneys are the main target organs after repeated exposure of rats to DIB. In a modern 28-day oral guideline study, increased absolute and relative liver weights (in both sexes) and kidney weights (in males only) were found at 1000 mg/kg bw/day. The NOAEL in this study was at 300 mg/kg bw/day, whilst the LOAEL for male rats in an oral screening study according to OECD TG 421 was at 100 mg/kg bw/day based on increased kidney weights and alpha-2u globulin nephropathy. No reliable studies were available for the respiratory and dermal routes of exposure. No data was available on the genotoxicity of DIB in humans. DIB was tested negative in an Ames test which was performed according to current guidelines with and without a metabolic activation system. In an earlier study, DIB (erroneously also called 2,2,4-trimethylpentene-1 in the publication) showed a "very low activity". Due to limitations in reporting, this result is, however, difficult to interpret. No clastogenic activity was found in an <i>in vitro</i> cytogenetic test performed on human lymphocytes according to current guidelines. However, these negative findings have to be evaluated with caution. The compound may be epoxidized by liver microsomal enzyme activity. This renders the earlier slightly positive results of a study plausible. Thus, the negative results in the more recent <i>in vitro</i> genotoxicity tests may be false negatives and need to be repeated because it is not clear whether these tests have been performed under conditions that avoid evaporation of the volatile test compound. There were no <i>in vivo</i> studies available to corroborate these negative findings. There were no epidemiology data or data from animal carcinogenicity studies with DIB available. However, DIB induced alpha2u-globulin nephropathy in male rats, similarly to the structural analogue 2,2,4-trimethylpentane, which was shown to be a renal tumour promoter specifically in male rats. A reproductive toxicity screening test was performed according to OECD TG 421 with oral administration of DIB to CD rats during pre-mating, mating, gestation and until lactation day 4. There were no indications for an adverse effect on reproductive performance, peri- and post-natal viability and performance of offspring (NOAEL: 1000 mg/kg bw/day).

isobutylene homopolymer & alpha-methylstyrene/ amylene/ piperylene copolymer & ethylene/ propylene copolymer & carbon black & bisphenol A, / isobutylene/ styrene copolymer & bisphenol A, / isobutylene/ styrene copolymer	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 Handy Cap IP and IPXL	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
alpha-methylstyrene/ amylene/ piperylene copolymer	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
ethylene/ propylene copolymer	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
polypropylene	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
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
bisphenol A, / isobutylene/ styrene copolymer	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
polypropylene	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
isobutylene homopolymer	LOW (LogKOW = 17.14)
polypropylene	LOW (LogKOW = 17.21)
bisphenol A, / isobutylene/ styre	LOW (LogKOW = 10.08)

ne copolymer	
Mobility in soil	
Ingredient	Mobility
isobutylene homopolymer	LOW (KOC = 35.04)
polypropylene	LOW (KOC = 23.74)

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	- Recycle wherever possible or consult manufacturer for recycling options. - Consult State Land Waste Management Authority for disposal. Removal of bisphenol A (BPA) from aqueous solutions was accomplished by adsorption of enzymatically generated quinone derivatives on chitosan beads. The use of chitosan in the form of beads was found to be more effective because heterogeneous removal of BPA with chitosan beads was much faster than homogeneous removal of BPA with chitosan solutions, and the removal efficiency was enhanced by increasing the amount of chitosan beads dispersed in the BPA solutions and BPA was completely removed by quinone adsorption in the presence of chitosan beads more than 0.10 cm³/cm³. In addition, a variety of bisphenol derivatives were completely or effectively removed by the procedure constructed in this study, although the enzyme dose or the amount of chitosan beads was further increased as necessary for some of the bisphenol derivatives used. M. Suzuki, and E Musashi J Appl Polym Sci, 118(2):721 - 732; October 2010 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. - Recycle wherever possible or consult manufacturer for recycling options. - Consult State Land Waste Authority for disposal. - Bury or incinerate residue at an approved site. - Recycle containers if possible, or dispose of in an authorised landfill.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

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
isobutylene homopolymer	Not Applicable
alpha-methylstyrene/ amylene/ piperylene copolymer	Not Applicable
ethylene/ propylene copolymer	Not Applicable
polypropylene	Not Applicable
carbon black	Not Applicable
bisphenol A, / isobutylene/ styrene copolymer	Not Applicable

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
isobutylene homopolymer	Not Applicable
alpha-methylstyrene/ amylene/ piperylene copolymer	Not Applicable
ethylene/ propylene copolymer	Not Applicable
polypropylene	Not Applicable
carbon black	Not Applicable
bisphenol A, / isobutylene/ styrene copolymer	Not Applicable

SECTION 15 REGULATORY INFORMATION

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

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

ALPHA-METHYLSTYRENE/ AMYLENE/ PIPERYLENE COPOLYMER 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

ETHYLENE/ PROPYLENE COPOLYMER 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

POLYPROPYLENE 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)
- 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
- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

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

BISPHENOL A, / ISOBUTYLENE/ STYRENE COPOLYMER IS FOUND ON THE FOLLOWING REGULATORY LISTS

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

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	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	Yes
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)
None Reported

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 (isobutylene homopolymer, alpha-methylstyrene/ amylene/ piperylene copolymer, ethylene/ propylene copolymer, polypropylene, carbon black, bisphenol A, / isobutylene/ styrene copolymer)
China - IECSC	Yes
Colombia - Colombia National Industrial Chemicals Inventory	No (isobutylene homopolymer, alpha-methylstyrene/ amylene/ piperylene copolymer, ethylene/ propylene copolymer, polypropylene, carbon black, bisphenol A, / isobutylene/ styrene copolymer)
Europe - EINEC / ELINCS / NLP	No (alpha-methylstyrene/ amylene/ piperylene copolymer, ethylene/ propylene copolymer, polypropylene)
Japan - ENCS	No (alpha-methylstyrene/ amylene/ piperylene copolymer, bisphenol A, / isobutylene/ styrene copolymer)
Korea - KECI	No (bisphenol A, / isobutylene/ styrene copolymer)
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	No (alpha-methylstyrene/ amylene/ piperylene copolymer, bisphenol A, / isobutylene/ styrene copolymer)
Vietnam - NCI	Yes
Russia - FBEPH	No (alpha-methylstyrene/ amylene/ piperylene copolymer, bisphenol A, / isobutylene/ styrene copolymer)
UAE - Control List (Banned/Restricted Substances)	No (isobutylene homopolymer, alpha-methylstyrene/ amylene/ piperylene copolymer, ethylene/ propylene copolymer, polypropylene, carbon black, bisphenol A, / isobutylene/ styrene copolymer)
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	03/09/2026
Initial Date	03/09/2026

Version	Issue Date	Sections Updated
2.1	03/09/2026	Accidental release measures - Spills (minor),Accidental release measures - Spills (major),Disposal considerations - Disposal,First Aid measures - Advice to Doctor,Exposure controls / personal protection - Engineering Control,Exposure controls / personal protection - Personal Protection (eye),Exposure controls / personal protection - Personal Protection (hands/feet),Exposure controls / personal protection - Personal Protection (other),Exposure controls / personal protection - Personal Protection (Respirator),Handling and storage - Handling Procedure,Stability and reactivity - Instability Condition, Ecological Information - Environmental,Toxicological information - Acute Health (swallowed),Toxicological information - Acute Health (eye),Toxicological information - Acute Health (skin),Toxicological information - Acute Health (inhaled),Toxicological information - Chronic Health,First Aid measures - First Aid (swallowed),First Aid measures - First Aid (eye),First Aid measures - First Aid (skin),First Aid measures - First Aid (inhaled),Handling and storage - Storage (suitable container),Handling and storage - Storage (storage incompatibility),Handling and storage - Storage (storage requirement),Transport information - Transport,Firefighting measures - Fire Fighter (extinguishing media),Firefighting measures - Fire Fighter (fire fighting),Firefighting measures - Fire Fighter (fire/explosion hazard),Firefighting measures - Fire Fighter (fire incompatibility),Name,Physical and chemical properties - Physical Properties,Hazards identification - Classification,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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