VECTOR®
STYRENIC BLOCK COPOLYMERS

SAFETY DATA SHEET

1. Identification

Product identifier **VECTOR® 2336A and 2411A Styrenic Block Copolymers**

Other means of identification

Synonyms VECTOR® is a registered trademark of TSRC Corporation

Recommended use Industrial conversion as a raw material for manufacture of articles or goods.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer Dexco Polymers
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Access code 333558

2. Hazard identification

Physical hazards Not classified.

Health hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Other hazards None known.

Supplemental information The material may form dust and can accumulate electrostatic charges, which may cause an electrical spark (ignition source).

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Butadiene-styrene Rubber		9003-55-8	> 95
Talc (non-asbestiform)		14807-96-6	<= 1
Cyclohexane		110-82-7	<= 0.2

Composition comments All concentrations are in percent by weight.

4. First-aid measures

Inhalation If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Skin contact	Flush skin with large amounts of water. For contact with hot material, immediately immerse affected area of skin in large amounts of cold water to dissipate heat and reduce the extent of thermal burns. Do not peel polymer from the skin.
Eye contact	Flush eyes with water as a precaution. Get medical attention if irritation develops or persists.
Ingestion	Have victim rinse mouth thoroughly with water.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes. Irritation of nose and throat.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	First aid personnel must be aware of own risk during rescue.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	None.
Specific hazards arising from the chemical	Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterised.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Fire fighting equipment/instructions	Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out.
General fire hazards	The product is not flammable. Will burn if involved in a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid inhalation of fumes from molten product. Surfaces may become slippery after spillage. Wear appropriate personal protective equipment. For personal protection, see section 8 of the SDS. For personal protection, see Section 8 of the SDS.
Methods and materials for containment and cleaning up	Scrape up with shovels into a suitable container for recycle or disposal. For waste disposal, see Section 13 of the SDS. For waste disposal, see section 13 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling	Avoid inhalation of dust and contact with skin and eyes. Avoid contact with hot material. The product may form dust and can accumulate electrostatic charges, which may cause an electrical spark (ignition source). Use proper grounding procedures. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry, well-ventilated place. Keep away from incompatible materials, open flames and high temperatures. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Cyclohexane (CAS 110-82-7)	TWA	100 ppm	
Talc (non-asbestiform) (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Cyclohexane (CAS 110-82-7)	TWA	344 mg/m3	
		100 ppm	
Talc (non-asbestiform) (CAS 14807-96-6)	TWA	2 mg/m3	Respirable particles.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Cyclohexane (CAS 110-82-7)	TWA	100 ppm	
Talc (non-asbestiform) (CAS 14807-96-6)	TWA	2 mg/m3	Respirable.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Cyclohexane (CAS 110-82-7)	TWA	100 ppm	
Talc (non-asbestiform) (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Cyclohexane (CAS 110-82-7)	TWA	100 ppm	
Talc (non-asbestiform) (CAS 14807-96-6)	TWA	2 fibers/cc	
		2 mg/m3	Respirable fraction.

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Cyclohexane (CAS 110-82-7)	TWA	1030 mg/m3	
		300 ppm	
Talc (non-asbestiform) (CAS 14807-96-6)	TWA	3 mg/m3	Respirable dust.

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
Cyclohexane (CAS 110-82-7)	15 minute	150 ppm	
	8 hour	100 ppm	
Talc (non-asbestiform) (CAS 14807-96-6)	15 minute	6 mg/m3	Respirable fraction.
		20 mg/m3	Inhalable fraction.
	8 hour	2 mg/m3	Respirable fraction.

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines Follow above occupational exposure limit values for dusts.

Appropriate engineering controls Observe occupational exposure limits and minimise the risk of inhalation of dust and fumes. Use explosion-proof equipment if high dust/air concentrations are possible.

Individual protection measures, such as personal protective equipment

Eye/face protection If contact with material may occur, safety glasses and face shield are recommended.

Skin protection

Hand protection When material is heated, wear gloves to protect against thermal burns.

Other Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practices.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form	Pellets.
Colour	White to off-white.
Odour	Odorless to mild.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Combustible.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.3 (for residual solvent)
Flammability limit - upper (%)	8.0 (for residual solvent)
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	< 1
Solubility(ies)	
Solubility (water)	(< 0.1%) Insoluble in water.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Other information	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Temperatures above 250 °C.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust may irritate respiratory system.
Skin contact	Molten material will produce thermal burns.
Eye contact	Dust may irritate the eyes.
Ingestion	May cause discomfort if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes and mucous membranes. Irritation of nose and throat.

Information on toxicological effects

Acute toxicity	Dusts may irritate the respiratory tract, skin and eyes.

Components	Species	Test Results
Cyclohexane (CAS 110-82-7)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 32880 mg/m3, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

Skin corrosion/irritation Contact with molten material may cause thermal burns.

Serious eye damage/eye irritation May cause irritation through mechanical abrasion.

Respiratory or skin sensitisation

Respiratory sensitisation Not classified.

Skin sensitisation Not classified.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classified.

ACGIH Carcinogens

Talc (non-asbestiform) (CAS 14807-96-6) A4 Not classifiable as a human carcinogen.

Canada - Manitoba OELs: carcinogenicity

Talc (non-asbestiform) (CAS 14807-96-6) Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Talc (non-asbestiform) (CAS 14807-96-6) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.

Chronic effects Talc may have effects on the lungs, resulting in talc pneumoconiosis.

Further information No other specific acute or chronic health impact noted.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data available.

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Partition coefficient n-octanol / water (log Kow)

Cyclohexane (CAS 110-82-7) 3.44

Mobility in soil The product is not mobile in soil.

Mobility in general The product is insoluble in water and will spread on the water surface.

Other adverse effects Not known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of waste at a facility with special permission to dispose industrial wastes. Waste should be accompanied by a manifest for the industrial waste.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company and/or appropriate testing.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

16. Other information

Issue date	27-December-2018
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Version No.	01
References	ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices EPA: AQUIRE database IARC Monographs. Overall Evaluation of Carcinogenicity HSDB® - Hazardous Substances Data Bank National Toxicology Program (NTP) Report on Carcinogens
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.