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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Houston, TX 77079, U.S.A.

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1-760-476-3962 (Americas)

**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.

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| **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

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| **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

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| **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

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|---|---|
| **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.

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| **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

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| **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**

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|---|---|
| **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**

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|---|---|
| **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.

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