

1. Identification

GHS product identifier	VECTOR 4111NS, 4113NS, 4114NS, 4116NS, 4211NS and 4213NS Styrenic Block Copolymers
Version #	tentative version
Issue date	28-March-2019
Revision date	-
Supersedes date	-
CAS #	Mixture
Recommended use	Industrial conversion as a raw material for manufacture of articles or goods.
Recommended Restrictions	-
Manufacturer	
Manufacturer	TSRC (Nantong) Industries Ltd. No.22 TongWang Road, Nantong Economic and Technological Development Zone, Nantong, Jiangsu, P.R.China (PC: 226017)
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2. Hazards identification

GHS classification	
Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
GHS label elements	
Signal word	None.
Hazard symbols	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 which do not result in classification	The material may form dust and can accumulate electrostatic charges, which may cause an electrical spark (ignition source).
Supplemental information	None.

3. Composition/information on ingredients

Components	CAS #	Percent
Styrene/Isoprene Copolymer	25038-32-8	>98

Composition comments	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Components not listed are either non-hazardous or are below reportable limits.
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4. First aid measures

First aid procedures	
Inhalation	If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Skin	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	Do not rub eyes. Flush eyes with water as a precaution. Get medical attention if irritation develops or persists. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes.
Ingestion	Have victim rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	Irritation of eyes and mucous membranes. Irritation of nose and throat.

Notes to physician	Treat symptomatically.
General advice	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 characterized.
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.
Protection of fire-fighters	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.

6. Accidental release measures

Personal precautions	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.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	Stop the flow of material, if this is without risk.
Methods for cleaning up	Scrape up with shovels into a suitable container for recycle or disposal. For waste disposal, see section 13 of the SDS.

7. Handling and storage

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.
Storage	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	No exposure limits noted for ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
Engineering controls	Observe occupational exposure limits and minimize the risk of inhalation of dust and fumes. Use explosion-proof equipment if high dust/air concentrations are possible.
Personal protective equipment	
Eye/face protection	If contact with material may occur, safety glasses and face shield are recommended. Wear a face shield when working with molten material.
Skin protection	Normal work clothing (long sleeved shirts and long pants) is recommended. For molten product, use any type rubber thermal insulating gloves and other clothing as necessary to protect from thermal burns.
Respiratory protection	In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter. In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter for organic gas.
Hand protection	When material is heated, wear gloves to protect against thermal burns.

9. Physical and chemical properties

Appearance	
Physical state	Solid.
Color	White to off-white.
Form	Pellet
Odor	Odorless to mild.
Odor threshold	Not available.
pH	Not applicable.
Melting point/Freezing point	Not available.
Boiling point	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.

Flammability limits in air, lower, % by volume	Not available.
Flammability limits in air, upper, % by volume	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	Stable at normal conditions.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	High temperatures. Avoid dust formation.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. Toxicological information

Routes of exposure	Inhalation. Ingestion. Eye contact. Skin contact.
Toxicological information	Occupational exposure to the substance or mixture may cause adverse effects.
Acute toxicity	Dusts may irritate the respiratory tract, skin and eyes.
Skin corrosion/irritation	Contact with molten material may cause thermal burns.
Serious eye damage/eye irritation	May cause irritation through mechanical abrasion.
Respiratory sensitizer	Not classified.
Skin sensitization	Not classified.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	Not classified.
Chronic effects	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Teratogenicity	Not classified.
Symptoms	Irritation of eyes and mucous membranes. Irritation of nose and throat.
Other information	When heated, the vapors/fumes given off may cause respiratory tract irritation.

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 / degradability	No data available.
Bioaccumulation	No data available.
Mobility	No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods Dispose of in accordance with local regulations. Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Waste from residues / unused products Dispose in accordance with all applicable regulations.

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

14. Transport information

ADR

Not regulated as dangerous goods.

RID

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

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

Limited warranty

There are no warranties which extend beyond the product description herein, and seller makes no warranty, express or implied, of fitness for particular use, merchantability or otherwise with respect to product, whether used singly or in combination with other substances or in any process, except that product sold hereunder shall conform to seller's standard sales specifications as of the date of the shipment. Without limiting the foregoing, seller does not recommend or endorse the use of product(s) in any medical application and specifically disclaims any representation or warranty, express or implied, of suitability or fitness for use or otherwise, with respect to product(s)' use in any medical application. Buyer represents and warrants that no product(s) purchased hereunder will be used in or resold into any commercial or developmental manner in connection with medical applications without seller's prior express written acknowledgement, further, buyer agrees that it will make no representations, express or implied, to any person to the effect that seller recommends or endorses the use of product(s) purchased hereunder in any medical application.

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. 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.

List of abbreviations

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