



## SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 and 453/2010 (REACH)

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### 1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

<b>Trademark:</b>	VESTOLEN™ A
<b>Product Name:</b>	5061R - 63363
<b>Product Description:</b>	Poly (ethylene-1-butene) [CASRN 25087-34-7]
<b>Product Type:</b>	Commercial Product
<b>Recommended use:</b>	May be used to produce molded or extruded articles or as a component of other industrial products.
<b>Company:</b>	SABIC SALES Europe B.V. or any of its Affiliates Europaboulevard 1, 6135 LD SITTARD P.O. Box 5151, 6130 PD SITTARD The Netherlands
<b>Manufacturer:</b>	SABIC Polymers Genk, Belgium Geleen, The Netherlands Wilton, United Kingdom and/or Gelsenkirchen, Germany
<b>Emergency Telephone Number:</b>	SITTARD +31 (0)46 476 55 55 (0h - 24h)
<b>E-mail:</b>	sds.info@sabic.com
<b>Website Address:</b>	<a href="http://www.sabic.com">www.sabic.com</a>





## 5. FIRE-FIGHTING MEASURES

<b>Autoignition Temperature:</b>	>350°C
<b>Explosive Limits</b>	
<b>upper:</b>	Not determined
<b>lower:</b>	Not determined
<b>Suitable Extinguishing Media:</b>	Use dry chemical, CO <sub>2</sub> , water spray or "alcohol" foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit re-ignition on larger resin fires (blobs, drools, etc.)
<b>Unsuitable Extinguishing Media for Safety Reasons:</b>	Do not use a solid water stream as it may scatter and spread fire
<b>Hazardous Decomposition Products:</b>	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides.
<b>Hazards from Combustion Products:</b>	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments.
<b>Specific Hazards:</b>	Take precautionary measures against static discharges During processing, dust may form explosive mixture in air Thermal decomposition can lead to release of irritating gases and vapors
<b>Special Protective Equipment for Firefighters:</b>	In the event of fire, wear self-contained breathing apparatus (EU: NEN-EN137)

## 6. ACCIDENTAL RELEASE MEASURES

<b>Clean up:</b>	Sweep up and shovel into suitable containers for disposal. Do not create a powder cloud by using a brush or compressed air.
<b>Personal Precautions:</b>	See section 8. If spilled, take caution, as material can cause surfaces to become very slippery.
<b>Environmental Precautions:</b>	Do not flush into surface water or sanitary sewer system. Material should not be released into the environment.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation and dust collection at machinery. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
<b>Storage:</b>	Store in a dry and cool area. Keep away from heat sources and sources of ignition. Keep away from direct sunlight.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits:** No components with information, unless noted below

<b>Chemical Name</b>	<b>Titanium Antimony Chromium Oxide Rutile</b>
	<b>68186-90-3</b>
France INRS (VME)	0.5 MGM3 Sb
Netherlands OEL - MAC	0.5 MGM3 Sb
UK EH40 MEL (TWA)	WEL_TWA: 0.5 mg/m <sup>3</sup> as Sb
Spain - Valores Limite Ambientales - VLE	0.5MGM3
	0.5MGM3
Denmark TWA Data - Threshold Limit Values (TLV):	GR: 0.5 mg/m <sup>3</sup> beregnet som Sb
Switzerland SUVA Limit Values at the Workplace Data - Time Weighted Average (TWA):	0.5 MGM3 Inhalable dust. Cr
Sweden Threshold Limit Values Data - Norway Exposure Limit Values Data - Threshold Limit Value:	0.5 MGM3 Total dust. Cr
Ireland Exposure Limit Values Data - Time Weighted Average (TWA):	KONS: 0.5 mg/m <sup>3</sup> som Sb; Anm: K
Greece - OEL	TWA 0.5 mg/m <sup>3</sup> as Sb
Italy - OEL	0.5 MGM3 Sb
	0.5 MGM3 Cr
	0.5 MGM3 Sb
	0.5 MGM3 Cr
	2 MGM3
<b>Chemical Name</b>	<b>Iron oxide</b>
	<b>1309-37-1</b>
France INRS (VME)	5 MGM3 Fume. Fe
Netherlands OEL - MAC	5 MGM3 Fume. Fe
	10 MGM3
UK EH40 MEL (TWA)	WEL_TWA: 4 mg/m <sup>3</sup> respirable, 10 mg/m <sup>3</sup> total inhalable
Spain - Valores Limite Ambientales - VLE	5MGM3 and fume.Fe
Denmark TWA Data - Threshold Limit Values (TLV):	GR: 3.5 mg/m <sup>3</sup> beregnet som Fe
Switzerland SUVA Limit Values at the Workplace Data - Time Weighted Average (TWA):	MAK_Wert: 3 mg/m <sup>3</sup> alveolengangiger
Sweden Threshold Limit Values Data - Portugal - TWAs	NGV: som Fe, 3.5 MGM3 respirabelt damm
Norway Exposure Limit Values Data - Threshold Limit Value:	VLE-MP: 10 mg/m <sup>3</sup> p_E; NOT: A_4; FUND: Pulmão, Siderose, Irritação
Ireland Exposure Limit Values Data - Time Weighted Average (TWA):	KONS: 3 mg/m <sup>3</sup> som Fe
Greece - OEL	TWA 5 mg/m <sup>3</sup> as Fe; STEL 10 mg/m <sup>3</sup> as Fe
Finland Exposure Limit Values Data - Time Weighted Average (TWA):	DT_1 10 mg/m <sup>3</sup> Fe ; DT_2 10 mg/m <sup>3</sup> Fe
Italy - OEL	HTP_8: 5 mg/m <sup>3</sup> ; HOU: Fe
<b>Chemical Name</b>	5 MGM3 Respirable fraction.
	<b>Titanium dioxide</b>
	<b>13463-67-7</b>
France INRS (VME)	10 MGM3 Ti
Netherlands OEL - MAC	10 MGM3
UK EH40 MEL (TWA)	WEL_TWA: 4 mg/m <sup>3</sup> respirable, 10 mg/m <sup>3</sup> total inhalable
Spain - Valores Limite Ambientales - VLE	VLA-ED: 10 mg/m <sup>3</sup>
Denmark TWA Data - Threshold Limit Values (TLV):	GR: 6 mg/m <sup>3</sup> beregnet som Ti
Switzerland SUVA Limit Values at the Workplace Data - Time Weighted Average (TWA):	MAK_Wert: 3 mg/m <sup>3</sup> alveolengangiger ; Kol_SS: Grp_C
Sweden Threshold Limit Values Data - Portugal - TWAs	NGV: 5 MGM3 totaldamm
Norway Exposure Limit Values Data - Threshold Limit Value:	VLE-MP: 10 mg/m <sup>3</sup> ; NOT: A_4; FUND: Pulmão
	KONS: 5 mg/m <sup>3</sup>

<b>Ireland Exposure Limit Values Data - Time Weighted Average (TWA):</b>	TWA 4 mg/m <sup>3</sup> respirable dust, 10 mg/m <sup>3</sup> total inhalable dust
<b>Greece - OEL</b>	DT_1 5 mg/m <sup>3</sup> T_1 , 10 mg/m <sup>3</sup> T_3
<b>Italy - OEL</b>	10 MGM3
<b>Poland - OEL:TWAs</b>	10 mg/m <sup>3</sup> NDS

*\*SABIC Recommended Exposure Limits have been established for certain chemicals.*

<b>Engineering Measures to Reduce Exposure:</b>	In the case of hazardous fumes, wear self-contained breathing apparatus. Wear face-shield and protective suit for abnormal processing problems. Handle in accordance with good industrial hygiene and safety practice. Provide for appropriate exhaust ventilation at machinery.
<b>Hand Protection:</b>	Protective gloves should be worn. (EU: NEN-EN 374). When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molton resin.
<b>Eye Protection:</b>	Safety glasses with side-shields. (EU: NEN-EN 165-166).
<b>Respiratory Protection:</b>	In the case of hazardous fumes, wear self contained breathing apparatus. In case of insufficient ventilation wear suitable respiratory equipment. (EU: NEN-EN149).
<b>Body Protection:</b>	Long sleeved clothing. (EU: NEN-EN 340-369-465).
<b>Hygiene Measures:</b>	When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Solid
<b>Appearance:</b>	Pellets
<b>Color:</b>	Same as color code
<b>Odor:</b>	Characteristic
<b>Melting point/range:</b>	120-140°C
<b>Boiling point/range:</b>	decomposition starting from 300°C
<b>Autoignition Temperature:</b>	>350°C
<b>Vapor Pressure:</b>	Negligible
<b>Density:</b>	0.94-0.97 g/cm <sup>3</sup>
<b>Water Solubility:</b>	Insoluble
<b>Evaporation Rate:</b>	Negligible
<b>Explosive Limits</b>	
<b>upper:</b>	Not determined
<b>lower:</b>	Not determined
<b>VOC content (%):</b>	Negligible

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under ambient conditions. Hazardous polymerization does not occur.
<b>Conditions to Avoid:</b>	Avoid temperatures above 300°C. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Do not exceed melt temperature recommendations in product literature. Purgings of hot material should be collected in small, flat, thin shapes and quenched with water to allow for rapid cooling. Do not allow product to remain in barrel at elevated temperatures for extended periods of time.
<b>Hazardous Decomposition Products:</b>	Process vapors under recommended processing conditions may include trace levels of hydrocarbons, carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

<b>LD50/oral/rat:</b>	>5000 mg/kg
<b>LD50/dermal/rabbit:</b>	>2000 mg/kg
<b>Subchronic Toxicity:</b>	No information available
<b>Primary Irritation:</b>	Substance does not generally irritate and is only mildly irritating to the skin
<b>Remarks:</b>	The toxicological data has been taken from products of similar composition
<b>Special Studies:</b>	Titanium Dioxide: The International Agency for Research on Cancer (IARC) has determined titanium dioxide to be a possible human carcinogen (class 2B) based on evidence in experimental animals. Rats exposed to high doses of titanium dioxide by inhalation or intratracheal instillation showed an increased incidence of lung tumors.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity Effects:</b>	Ecological damages are not known or expected under normal use. Small particles can have an effect on water and soil organisms.
<b>Other information:</b>	none.

## 13. DISPOSAL CONSIDERATIONS

<b>Waste from residues / unused products:</b>	Where possible recycling is preferred to disposal or incineration. Dispose of in accordance with local regulations.
<b>Contaminated Packaging:</b>	Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.
<b>EWC waste disposal no:</b>	702 - waste from the manufacture, formulation, supply and use of plastics, synthetic rubber and man-made fibres.

## 14. TRANSPORT INFORMATION

**Transport Classification:** Not regulated as hazardous for shipment, unless noted below, under current transportation guidelines.

**DOT**

**ADR/RID/ADN**

**IMDG**

**ICAO**

**IATA-DGR**

## 15. REGULATORY INFORMATION

Further regulatory information can be requested via your local sales office.

**International Inventories:**

<b>TSCA (USA):</b>	Listed
<b>DSL (Canada):</b>	Listed
<b>ENCS (Japan):</b>	Listed
<b>IECSC (China):</b>	Listed
<b>KECL (Korea):</b>	Listed
<b>PICCS (Philippines):</b>	Listed
<b>AICS (Australia):</b>	Listed
<b>NZIoC (New Zealand):</b>	Listed
<b>REACH Information:</b>	For this product's REACH related information, please contact <a href="mailto:sds.info@sabic.com">sds.info@sabic.com</a>

**Other Inventory Information:**

A "Listed" entry above means all chemical components are on the respective inventory list and/or a qualifying exemption exists for one or more components. A "Not listed" entry above indicates one or more components is restricted from import or manufacture into that country/region. Articles are exempt from registration and are therefore not listed on the national chemical inventories.

## 16. OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H332 - Harmful if inhaled

H302 - Harmful if swallowed

H411 - Toxic to aquatic life with long lasting effects

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### SDS Scope:

Europe: Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 453/2010.

This document is also applicable in other countries and regions.

**Prepared by:** Product Stewardship & Toxicology

DISCLAIMER: The information contained in the Safety Data Sheet is at the date of its issuance to the best of our knowledge correct according to the data available to us. The information is meant as a guideline for safe use, handling, disposal, storage and transport of products and does not imply any warranty (not implied nor explicitly) or specification. The Supplier shall to the extent permitted by law not be liable for any error or incorrectness in the information contained in this Safety Data Sheet. The information relates exclusively to the specified products, which may not be suitable for combination with other materials or use in processes other than those specifically described here.

**End of Safety Data Sheet**