SAFETY DATA SHEET

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

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1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Trademark:	VALOX™
Product Code:	V3504-1001-J1KB-JMOK
Product Description:	Polybutylene Terephtalate [CASRN 30965-26-5], flame retardant
Product Type:	Commercial Product
Recommended use:	May be used to produce molded or extruded articles or as a component of other industrial products.
Company:	SABIC Innovative Plastics B.V. Plasticslaan 1 P.O. Box 117 4600 AC Bergen op Zoom The Netherlands
Manufacturer:	SABIC Japan LLC. 2-2,kinugaoka, Moka-shi, Tochigi-ken, Japan 321-4392
Emergency Telephone Number:	Bergen op Zoom +31(0)164-292911 (24/24)
Emergency Transportation/CHEMTREC (24 HOUR):	800 424-9300 (USA) +1 703-527-3887 (globally, outside USA)
E-mail:	webinquiries@sabic-ip.com
Website Address:	**www.sabic.com**

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- Pellets with slight or no odor
- Spilled material may create slipping hazard
- Can burn in a fire creating dense, toxic smoke
- Molten plastic can cause severe thermal burns
- Fumes produced during melt processing may cause eye, skin, and respiratory tract irritation. Severe over-exposure may result in nausea, headache, chills, and fever. See below for additional effects.
- Secondary operations, such as grinding, sanding, or sawing can produce dust which may present an explosion or respiratory hazard.

Skin Contact: Not a hazard with pellets during normal industrial use.

Eye Contact: Resin particles, like other inert materials, are mechanically irritating to eyes.

Inhalation: Pellet inhalation unlikely due to physical form. Processing fumes evolved at recommended processing conditions may contain trace amounts of tetrahydrofuran (typically less than 1 ppm). NTP has listed tetrahydrofuran as a carcinogen. Extreme processing conditions or temperatures may result in higher levels. See section 8 for appropriate exposure controls and personal protection.

Ingestion: Pellet ingestion unlikely due to physical form.

Other Information: Cool skin rapidly with cold water after contact with molten material. Heating can release hazardous gases. Hazardous fumes can also occur in post-processing operations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Not a hazardous substance or preparation according to EC-directives 1999/45/EC and 1272/2008/EC unless indicated.

Chemical Name	CAS Number	ELINCS / EINECS-No.:	Weight %	Classification:
Antimony trioxide Sb2O3	1309-64-4	2151750	5-10	Carc. Cat.3;R40

Chemical Name	SABIC Recom'd. (8 Hr)*	MAC (15 min. TWA)	MAC (8hr TWA)
Antimony trioxide Sb2O3	0.5 mg/m^3 TWA as antimony compounds	not determined	0.5mg/m^3 (as Sb)

Remarks: This product consists primarily of high molecular weight polymers which are not expected to be hazardous.

4. FIRST AID MEASURES

If Inhalation:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
On skin contact:	Wash off immediately with soap and plenty of water. Immediately cool the skin by rinsing with cold water after contact with hot material. Consult a physician.
On contact with eyes:	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist.
On ingestion:	No hazards which require special first aid measures.
Precautions:	Cool molten product on skin with plenty of water. Do not remove solidified product. Do not peel polymer from the skin.

5. FIRE-FIGHTING MEASURES

Autoignition Temperature:	630°C (1166°F) estimated
Explosive Limits	
upper:	Not determined
lower:	Not determined
Suitable Extinguishing Media:	Use dry chemical, CO2, 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.).
Unsuitable Extinguishing Media for Safety Reasons:	Do not use a solid water stream as it may scatter and spread fire.
Hazardous Decomposition Products:	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbons fragments, hydrogen bromide.
Hazards from Combustion Products:	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments, brominated hydrocarbons.
Special Protective Equipment for Firefighters:	In the event of fire, wear self-contained breathing apparatus (EU: NEN-EN137).
Specific Hazards:	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.

6. ACCIDENTAL RELEASE MEASURES

Clean up: Sweep up and shovel into suitable containers for disposal. Do not create a powder cloud by using a brush or compressed air.

Personal Precautions: See section 8.

Environmental Precautions: Do not flush into surface water or sanitary sewer system. Material should not be released into the environment.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation. All metal parts of the mixing and processing equipment must be earthed.

Storage: Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No components with information, unless noted below

Antimony trioxide Sb2O3 - 1309-64-4

SABIC Recom'd. (8 Hr)*	0.5 mg/m^3 TWA as antimony compounds
France INRS (VME)	0.5 mg/m^3 Sb
Netherlands OEL - MAC	0.5 mg/m^3 Sb
UK EH40 MEL (TWA)	WEL_TWA: 0.5 mg/m^3 as Sb
Spain - Valores Limite Ambientales - VLE	0.5mg/m^3
Denmark TWA Data - Threshold Limit Values (TLV):	GR: 0.5 mg/m^3 beregnet som Sb
Switzerland SUVA Limit Values at the Workplace Data - Time Weighted Average (TWA):	0.1 mg/m^3 Inhalable dust. Sb
Sweden Threshold Limit Values Data -	0.5 mg/m^3 Total dust. Sb
Norway Exposure Limit Values Data - Threshold Limit Value:	KONS: 0.5 mg/m^3 som Sb; Anm: K
Ireland Exposure Limit Values Data - Time Weighted Average (TWA):	TWA 0.5 mg/m^3 as Sb
Greece - OEL	0.5 mg/m^3 Sb
Finland Exposure Limit Values Data - Time Weighted Average (TWA):	HTP_8: 0.5 mg/m^3 ; HTP_15: 40 mg/m^3 ; HOU: Sb
Italy - OEL	0.5 mg/m^3 Sb

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

Engineering Measures to Reduce Exposure: 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.

Hand Protection: Protective gloves should be worn. (EU: NEN-EN 374).

Eye Protection: Safety glasses with side-shields. (EU: NEN-EN 165-166).

Respiratory Protection: In the case of hazardous fumes, wear self contained breathing apparatus. In case of insufficient ventilation wear suitable respiratory equipment. (EU: NEN-EN149).

Body Protection: Long sleeved clothing (EU: NEN-EN 340-369-465)

Hygiene Measures: When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	Pellets
Color:	Same as color code
Odor:	None
Melting point/range:	Various
Autoignition Temperature:	630°C (1166°F) estimated
Vapor Pressure:	Negligible
Water Solubility:	Insoluble
Evaporation Rate:	Negligible
Specific gravity:	>1; (water = 1)
VOC content (%):	Negligible
Explosive Limits	
Explosion Limits	Not determined
upper:	Not determined
Explosion Limits	Not determined
lower:	Not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under ambient conditions. Hazardous polymerization does not occur.
Conditions to Avoid:	To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Avoid temperatures above 630°C.
Hazardous Decomposition Products:	Traces of, phenols, alkylphenols, diarylcarbonates, hydrogen bromide, bromine, brominated hydrocarbons.
Incompatible Products:	Strong acids, strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

LD50/oral/rat:	>5000 mg/kg
LD50/dermal/rabbit:	>2000 mg/kg
Subchronic Toxicity:	No information available
Primary Irritation:	Substance does not generally irritate and is only mildly irritating to the skin.
IARC:	Not listed
OSHA:	Not regulated
NTP:	Not tested
Remarks:	The toxicological data has been taken from products of similar composition.
Special Studies:	PROCESSING FUMES: Processing fumes evolved at recommended processing conditions may contain trace amounts of tetrahydrofuran (typically less than 1 ppm). Extreme processing conditions or temperatures may result in higher levels. See section 8 for appropriate exposure controls and personal protection. In 2-year carcinogenicity bioassays conducted by the National Toxicology Program (NTP), mice and rats (50/sex/group) were exposed to tetrahydrofuran at concentrations of 0, 200, 600, or 1,800 ppm via inhalation 6 hours/day, 5 days/week for 104 weeks. Under the conditions of these 2-year inhalation studies, there was some evidence of carcinogenic activity of tetrahydrofuran in male F344/N rats based on increased incidences of renal tubule adenoma or carcinoma (combined) at 600 and 1,800 ppm. There was no evidence of carcinogenic activity of tetrahydrofuran in female F344/N rats exposed to 200, 600, or 1,800 ppm or male B6C3F1 mice exposed to 200, 600, or 1,800 ppm. There was clear evidence of carcinogenic activity of tetrahydrofuran in female B6C3F1 mice based on increased incidences of hepatocellular neoplasms observed at 1,800 ppm. Antimony trioxide: Tested in a chronic inhalation of 45 mg/m^3 by guinea pigs resulted in extensive pneumonitis and fatty degeneration of the liver. Other long-term inhalation studies in rats and rabbits found lipid pneumonitis. One epidemiology study of process workers exposed to antimony metal suggests an increase in lung cancer. Animal studies and epidemiological studies suggests developmental toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects:	Do not flush into surface water or sanitary sewer system.
Ecotoxicity - Invertebrate Data:	Ecological damages are not known or expected under normal use.
Germany VCI (WGK):	0

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:	Where possible recycling is preferred to disposal or incineration. Dispose of in accordance with local regulations.
Contaminated Packaging:	Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal
EWC waste disposal no:	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

This substance is classified and labelled according to Annex I of Directive 67/548/EEC, as amended.

International Inventories:

TSCA (USA):	Listed
DSL (Canada):	Listed
EINECS/ELINCS (Europe):	Listed
ENCS (Japan):	Listed
IECSC (China):	Listed
KECL (Korea):	Listed
PICCS (Philippines):	Listed
AICS (Australia):	Listed
NZIoC (New Zealand):	Listed
REACH Information:	For this product's REACH related information, please contact webinquiries@sabic-ip.com

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.

SVHC (REACH Regulation (EC) No 1907/2006 and 453/2010, as amended):
This product does not intentionally contain SVHC chemicals except as noted below. Incidental amounts of impurities, if present, would be below the threshold limit of 0.1% by weight.

California Proposition 65:
Components in this product known to the State of California to cause cancer and/or reproductive effects, are listed below:

Chemical Name	Weight %	California Proposition 65:
Antimony trioxide Sb2O3 1309-64-4	5-10	Type of Toxicity: cancer

RoHS EU Directive 2002/95/EC (and its amendments and directive 2011/65/EU):
This product complies with RoHS - it does not intentionally contain banned chemicals.

16. OTHER INFORMATION

R40 - Limited evidence of a carcinogenic effect

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SDS Scope:
Europe: Conforms to Regulation (EC) No 1907/2006 and 453/2010 (REACH)
This document is also applicable in other countries and regions.

Prepared by: Product Stewardship & Toxicology

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End of Safety Data Sheet