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MATERIAL SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

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1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Trademark:	LUBRICOMP*
Product Code:	AI0019-BN70495-0-RDV
Product Description:	Acrylonitrile-butadiene-styrene terpolymer [CASRN 9003-56-9]
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 Innovative Plastics Ottergeerde 22-28 4941 VM Raamsdonksveer The Netherlands
Emergency Telephone Number:	Bergen op Zoom +31(0)164-292911 (24/24)
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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.

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 67/548/EEC or 99/45/EC unless indicated.

Chemical Name	CAS Number	ELINCS / EINECS-No.:	Weight %	Classification:
Antimony trioxide	1309-64-4	2151750	1-5	Carc. Cat.3;R40

Chemical Name	SABIC Recom.(8 Hr)*	MAC (15 min. TWA)	MAC (8hr TWA)
Antimony trioxide	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. The ingredients in this product are present within the polymer matrix and 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. Processing fumes inhalation may be irritating to the respiratory tract. If symptoms are experienced remove victim from source of contamination or move victim to fresh air and obtain medical advice. If symptoms persist, call a physician.

On skin contact: Immediately cool the skin by rinsing with cold water after contact with hot material. Wash off immediately with soap and plenty of water. If skin irritation persists, call 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: 508°C (972°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 fluoride, carbonyl fluoride, fluorocarbons, hydrogen bromide, brominated hydrocarbons.

Special Protective Equipment for Firefighters: In the event of fire, wear self-contained breathing apparatus.

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. 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:	Keep containers tightly closed in a dry, cool and well-ventilated place. 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 - 1309-64-4

SABIC Recom.(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

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.
Eye Protection:	Safety glasses with side-shields.
Respiratory Protection:	In the case of hazardous fumes, wear self contained breathing apparatus In case of insufficient ventilation wear suitable respiratory equipment
Body Protection:	Long sleeved clothing
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 This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures.
Autoignition Temperature:	508°C (972°F) estimated
Vapor Pressure:	Negligible
Water Solubility:	Insoluble
Evaporation Rate:	Negligible
Specific gravity:	>1; (water = 1)
VOC content (%):	Negligible
Explosive Limits	
upper:	Not determined
lower:	Not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under ambient conditions. Hazardous polymerisation does not occur.
Conditions to Avoid:	Do not expose to temperatures above 508°C. To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous.
Hazardous Decomposition Products:	Traces of, phenols, alkylphenols, diarylcarbonates, carbonyl fluoride, hydrogen fluoride, fluorocarbons, hydrogen bromide, brominated hydrocarbons.

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
Remarks:	The toxicological data has been taken from products of similar composition.

Special Studies:

Styrene: A reproduction study in rats exposed to 125 and 250 ppm in drinking water (approximately 14-21 mg/kg/day) produced no treatment-related effects on reproductive performance over 3-generations. The only treatment related findings were reduced pup survival index in the F1 and F2 offspring. There was no evidence of developmental effects and no other effects were reported. The parental NOEL was 250 ppm and the NOEL for the F1 and F2 offspring was 125 ppm. In developmental toxicity studies in rats, rabbits, and hamsters styrene was not a selective toxicant to the fetus and was toxic at only those doses that produced maternal toxicity.
In humans, styrene is associated with central nervous system depression (headache, fatigue, nausea, and dizziness) at inhalation concentrations greater than 50 ppm. Styrene has also been reported to reduce sensory nerve conductions in occupation settings after exposure to 100 ppm or more. Styrene has also been reported to produce color vision deficiencies (dyschromatopsia) at concentrations greater than 8 ppm (averaging 24 ppm). Twelve epidemiology studies have been reported for styrene and half have supported the hypothesis that styrene produces lymphatic and hematopoetic cancers (LHC). However, those that show an increase of LHC has generally been small in size (limited statistical power), have shown no dose-response relationship, and/or had multiple chemical exposures. Of the six studies that have not shown an association with styrene and LHC, these studies tended to be larger in size (higher statistical power), had an older study population, and had good exposure data. Overall, the weight of evidence suggests that there is not an association of LHC and styrene exposure in humans.
In a recent inhalation cancer bioassay, Sprague Dawley derived rats (70/sex/group) were exposed whole body to styrene vapor at 0, 50, 200, 500, or 1000 ppm 6 h/day 5 days/week for 104 weeks. Males exposed to 500 and 1000 ppm and females exposed to 200 ppm and higher gained significantly less weight than the controls. There were no changes of toxicologic significance in hematology, clinical chemistry, urinalysis, or organ weights. Styrene-related non-neoplastic histopathologic changes were confined to the olfactory epithelium of the nasal mucosa. The incidence and severity were related to dose. There was no evidence that styrene exposure caused treatment related increases of any tumor type in males or females or in the number of tumor bearing rats in the exposed groups compared to controls. In 2-year carcinogenicity bioassays conducted by the National Toxicology Program, rats and mice (50/sex/group) received 0, 500, 1000, or 2000 mg/kg/day and 0, 150, or 300 mg/kg/day, respectively, via oral gavage. In male or female rats and female mice there was no significant difference in tumor incidence when compared to the control groups. In male mice there was a positive association between styrene dose and the incidence of the combination of adenomas and carcinomas of the lung. However, due to the high background incidence of this tumor type in male mice, no firm conclusion was drawn for the carcinogenicity. In a study that administered styrene (125 and 250 ppm) in the drinking water of rats for 2 years, there was no evidence of carcinogenicity. In other chronic inhalation toxicity studies, rats were exposed to styrene via inhalation at concentrations up to 300 ppm for 4-6 hours/day, 5 days/week, for 1 year or up to 1000 ppm for 2 years. There was a slightly increased, but not statistically significant, incidence of mammary tumors in the females in both studies. Because the control incidence was also high and there was no dose-response relationship the studies were

considered to be negative.
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.

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 product should follow related Japanese local chemical regulations and transportation requirement..

R -phrase(s)

S -phrase(s)

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
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.

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:
4-Vinylcyclohexene 100-40-3	<100ppm	Listed: May 1, 1996 Carcinogenic.
Ethylbenzene 100-41-4	<100ppm	Type of Toxicity: cancer
Acrylonitrile 107-13-1	0.01-0.10	Type of Toxicity: cancer
Antimony trioxide 1309-64-4	1-5	Type of Toxicity: cancer
Carbon black 1333-86-4	0.01-0.10	Listed: February 21, 2003 Carcinogenic. (airborne, unbound particles of respirable size)
Titanium dioxide 13463-67-7	0.1-1.0	Listed: September 2, 2011 Carcinogenic. (airborne, unbound particles of respirable size)
Lead 7439-92-1	<100ppm	Type of Toxicity: cancer ; Type of Reproductive Toxicity: developmental, female, male
Arsenic 7440-38-2	<100ppm	Type of Toxicity: cancer

RoHS EU Directive 2002/95/EC:
The subjected product is in compliance with EU RoHS Directive 2002/95/EC. All below chemicals are not employed in the manufacture of the product: a.Cadmium and its compounds, b.Lead and its compounds, c.Mercury and its compounds, d.Hexavalent chromium compounds, e.Polybrominated biphenyls (PBBs), f.Polybrominated diphenyl ethers (PBDEs including Deca-BDE). The trace levels of heavy metals may be present as impurities within threshold limits (<0.1% for Pb, Hg, Cr VI, and <0.01% for Cd). We are disclosing this information, to the best of our knowledge, based upon data from our raw material manufacturers.

16. OTHER INFORMATION

Text of R Phrases mentioned in Section 3

R40 - Limited evidence of a carcinogenic effect

LUBRICOMP* is a trademark of SABIC Innovative Plastics IP BV

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

Prepared by: Product Stewardship & Toxicology.

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End of Material Safety Data Sheet