SAFETY DATA SHEET

1. IDENTIFICATION

Trademark	:	LEXAN™ resin
Product name	:	945-GY1G023
Product code	:	22204985
Product description	:	Polycarbonate
Appearance	:	pellets
Recommended use	:	May be used to produce molded or extruded articles or as a component of other industrial products. Manufacture of plastics products, including compounding and conversion
Restrictions on use	:	For industrial use only.
Supplier	:	SABIC Petrochemicals Japan LLC Tokyo Club Building 3-2-6 Kasumigaseki Chiyoda-Ku Tokyo, 100-0013 Japan Telephone: +81 335934780
Emergency SABIC Telephone #	:	Japan: +(81)-3-3593-4780
Emergency Transportation #	:	CHEMTREC, U.S. : (800) 424-9300 International: +1 (703) 527-3887
E-mail address	:	sds.info@sabic.com
Website	:	http://www.sabic.com

2. HAZARDS IDENTIFICATION

GHS Remark

The additives in this product (if any) are bound in a thermoplastic resin matrix. In accordance with GHS for the classification of the product, the hazard potential may be assessed with respect to the physico-chemical form and/or bioavailability of the individual components in the thermoplastic resin. UN GHS says, that even if adverse effects are seen in animal studies or in-vitro tests, no classification is needed if the mechanism or mode of action is not relevant to humans. The European CLP Regulation also mentions, that no classification is indicated if the mechanism is not relevant to humans. Where GHS classifications are shown below, these are based on the individual components in the thermoplastic resin matrix. Under the typical use conditions for the resin, these hazardous components are unlikely to contribute to workplace exposure. Please read the entire safety data sheet and/or consult an EHS professional for a complete understanding.

GHS classification of chemical product

Not a hazardous substance or mixture.

GHS label elements
Not a hazardous substance or mixture.

Other hazards which do not result in classification
None known.

SABIC 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.
Secondary operations, such as grinding, sanding, or sawing can produce dust which may present an explosion or respiratory hazard.

Other information
OSHA, IARC and/or NTP have listed carbon, titanium dioxide, crystalline silica (quartz), respirable glass and certain heavy metals, present in some colorants and fillers, as carcinogens. If these materials are present in this product at significant quantities, they are shown in Section 2/3. These materials are essentially bound to the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions.

Processing Issues
Processing vapors may cause irritation to the eyes, skin, and respiratory tract. In cases of severe exposure, nausea and headache can also occur. Grease-like processing vapor condensates on ventilation ductwork, molds, and other surfaces can cause irritation and injury to skin.

Aggravated Medical Condition
MEDICAL RESTRICTIONS: There are no known health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing vapors.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)	ENCS/ISHL number
Titanium Dioxide PW6	13463-67-7	>= 0.1 - < 1	1-558, 5-5225
Carbon Black	1333-86-4	>= 0.1 - < 1	5-5222,

Components which are considered potential hazards to health or the environment, if present above minimum concentrations, are listed above. Any concentration shown as a range is to protect confidentiality and/or is due to batch variation. Any non-hazardous components are being withheld as a trade secret. This product consists primarily of high molecular weight polymers which are not expected to be hazardous. Furthermore, any additives in this product are present within the polymer matrix and are not expected to be hazardous under recommended use conditions. Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

General advice	:	Thermal decomposition can lead to release of irritating gases and vapours. Move the victim to fresh air. Obtain medical attention.
If inhaled	:	Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If symptoms persist, call a physician.
In case of skin contact	:	After contact with skin, wash immediately with plenty of cold water. Wash off immediately with soap and plenty of water. Consult a physician. If skin irritation persists, call a physician.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Negligible or unlikely exposure pathways If accidentally swallowed obtain immediate medical attention.
Most important symptoms and effects, both acute and delayed	:	None known.
Notes to physician	:	No information available.

5. FIREFIGHTING MEASURES

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	:	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during firefighting	:	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Material is not sensitive to mechanical impact.
Hazardous combustion products	:	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments. If present, certain hazardous additives can also liberate halogenated hydrocarbons. No hazardous combustion products are known
Specific extinguishing	:	Take precautionary measures against static discharges.

methods		During processing, dust may form explosive mixture in air. Thermal decomposition can lead to release of irritating gases and vapours.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary. Stay upwind/ keep distance from source.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Take precautionary measures against static discharges.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Should not be released into the environment. SABIC is committed to implementing Responsible Care® and global sustainability programs (such as The Alliance to End Plastic Waste, Operation Clean Sweep®, etc.) throughout the value chain that are designed to prevent and address accidental releases into the environment. Accordingly, SABIC recommends implementation of systems and practices by downstream users to prevent and address incidental releases in order to protect the aquatic environment from potential (long term) negative effects of plastic materials.
Methods and materials for containment and cleaning up	:	Sweep up and shovel into suitable containers for disposal. Do not create a powder cloud by using a brush or compressed air.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	Handle in accordance with good industrial hygiene and safety practice. 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. Open containers only in well-ventilated area.
Avoidance of contact	:	No special restrictions on storage with other products.
Hygiene measures	:	Do not eat, drink or smoke when using this product.

Storage

Conditions for safe storage	:	Keep tightly closed in a dry and cool place. Keep away from heat and sources of ignition. Residual monomer vapors can accumulate in the headspace of closed containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Reference concentration / Permissible concentration	Basis
Titanium Dioxide PW6	13463-67-7	OEL-M	0.3 mg/m3 (Titanium)	JP OEL JSOH
	Further information: Group 2B: possibly carcinogenic to humans			
Carbon Black	1333-86-4	OEL-M (Respirable dust)	1 mg/m3	JP OEL JSOH
	Further information: Group 2B: possibly carcinogenic to humans			
		OEL-M (Total dust)	4 mg/m3	JP OEL JSOH
	Further information: Group 2B: possibly carcinogenic to humans			
		TWA (particulate)	3 mg/m3	SABIC OEL: Occupational Exposure Limits
		TWA (Inhalable particulate matter)	3 mg/m3	ACGIH

Engineering measures : Handle in accordance with good industrial hygiene and safety practice.
Provide appropriate exhaust ventilation at machinery.
Processing fume condensate may be a fire hazard and toxic; remove periodically from exhaust hoods, ductwork, and other surfaces using appropriate personal protection.

Personal protective equipment

Respiratory protection : Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapours.
If dust or powder are produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust.

No personal respiratory protective equipment normally required.

Hand protection
Material : Wear protective gloves.

Eye protection : Safety glasses with side-shields
Chemical resistant goggles must be worn.

Skin and body protection : Long sleeved clothing

Protective measures : Wear suitable protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	pellets
Colour	:	grey
Odour	:	none or slight
Odour Threshold	:	No information available.
Melting point/ range	:	This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures.
Boiling point/boiling range	:	not determined
Lower explosion limit and upper explosion limit / flammability limit		
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	Not applicable
Decomposition temperature	:	not determined
pH	:	No data available
Auto-ignition temperature	:	630 °C
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	No information available.
Vapour pressure	:	negligible
Density and / or relative density		
Relative density	:	>1 (water = 1)
Density	:	not determined
Relative vapour density	:	not determined

Explosive properties	:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable at normal ambient temperature and pressure. Hazardous polymerisation does not occur.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	To avoid thermal decomposition, do not overheat. Heating can release hazardous gases. 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.
Incompatible materials	:	No special restrictions on storage with other products.
Hazardous decomposition products	:	No hazardous decomposition products are known.
Hazardous decomposition products	:	Process vapors under recommended processing conditions may include trace levels of hydrocarbons, phenols, alkylphenols, diarylcarbonates If present, certain hazardous additives can also liberate halogens, hydrohalogen acids or halogenated hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Remarks: >5000 mg/kg (estimated)
Acute dermal toxicity	:	Remarks: >2000 mg/kg (estimated)

STOT - repeated exposure

Components:

Titanium Dioxide PW6:

Target Organs	:	Lungs

Carbon Black:

Target Organs	:	Lungs

Experience with human exposure

Product:

Inhalation	:	Remarks: Inhalation unlikely due to physical form. Processing fumes evolved at recommended conditions may contain trace amounts of hazardous chemicals. Extreme processing conditions or temperatures may result in higher levels. Processing vapors may cause irritation to the eyes, skin, and respiratory tract. In cases of severe exposure, nausea and headache can also occur. Grease-like processing vapor condensates on ventilation duct work, molds, and other surfaces can cause irritation and injury to skin.
Skin contact	:	Remarks: Not a hazard during normal industrial use. If present, some additives (like glass fiber or flame retardants) may cause skin irritation in susceptible persons.
Eye contact	:	Remarks: Resin particles, like other inert materials, are mechanically irritating to eyes.
Ingestion	:	Remarks: Ingestion unlikely due to physical form.

Further information

Product:

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Hazardous to the ozone layer

Not applicable

Other adverse effects

Product:

Additional ecological information	:	Do not flush into surface water or sanitary sewer system. Ecological injuries are not known or expected under normal use.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Waste must be classified and labelled prior to recycling or disposal. Empty containers should be taken to an approved waste handling site for recycling or disposal.Where possible recycling is preferred to disposal or incineration. SABIC is committed to implementing Responsible Care® and global sustainability programs (such as The Alliance to End Plastic Waste, Operation Clean Sweep®, etc.) throughout the value chain that are designed to prevent and address accidental releases into the environment. Accordingly, SABIC recommends implementation of systems and practices by downstream users to prevent and address incidental releases in order to protect the aquatic environment from potential (long term) negative effects of plastic materials.
Contaminated packaging	:	Where possible recycling is preferred to disposal or incineration. Can be landfilled or incinerated, when in compliance with local regulations.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable

IATA-DGR

UN/ID No.	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Packing instruction (cargo aircraft)	:	Not applicable
Packing instruction (passenger aircraft)	:	Not applicable

IMDG-Code

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
EmS Code	:	Not applicable
Marine pollutant	:	Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

Refer to section 15 for specific national regulation.

Special precautions for user

Not applicable

15. REGULATORY INFORMATION

SABIC is disclosing information on minor components in section 15 that, to the best of our knowledge, are based upon data from our raw material suppliers or manufacturers. Note that analysis of the raw materials and/or SABIC products for presence of these or other chemicals on a routine basis is neither part of our quality control plan, nor is it a part of our product specifications, and hence it shall not be construed as any warranty, expressed or implied. Chemical(s) listed in this section can be considered to be present with a concentration below 0.1 (% w/w), unless also appearing in section 3 where a higher concentration range may be displayed.

Further, this does not exclude presence of negligibly slight traces of other chemicals due to, amongst others, impurities or residuals in the components supplied by external parties and/or used in the production of such components. It is the responsibility of the manufacturer or seller to confirm and establish compliance of the final product with local/country regulatory requirements. The information provided here is current as of the date of this document, based on data available to SABIC.

Related Regulations

Chemical Substance Control Law

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacture

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Substances Prevented From Impairment of Health

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

Substances Subject to be Notified Names

Article 57-2 (Enforcement Order Table 9)

Chemical name	Concentration (%)	Remarks
Carbon black	>=0.1 - <1	-
	>=0.3 - <1	-

Substances Subject to be Indicated Names

Not applicable

Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

Ordinance on Prevention of Lead Poisoning

Not applicable

Ordinance on Prevention of Tetraalkyl Lead Poisoning
Not applicable

Ordinance on Prevention of Organic Solvent Poisoning
Not applicable

Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)
Not applicable

Poisonous and Deleterious Substances Control Law
Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Until March 31st, 2023

From April 1st, 2023

Not applicable

Explosive Control Law
Not applicable

Vessel Safety Law
Not regulated as a dangerous good

Aviation Law
Not regulated as a dangerous good

High Pressure Gas Safety Act
Not applicable

Marine Pollution and Sea Disaster Prevention etc Law

Bulk transportation	:	Not classified as noxious liquid substance
Pack transportation	:	Not classified as marine pollutant

Water Pollution Control Law
Hazardous substance (Law Art. 2, Enforcement Order Art. 2, Cabinet Order Art. 1)
Designated substance (Law Art. 2-4, Enforcement Order Art. 3-3)

Waste Disposal and Public Cleansing Law
Industrial waste

The components of this product are reported in the following inventories:

TCSI(Taiwan)	:	Not in compliance with the inventory
TSCA(USA)	:	All substances listed as active on the TSCA inventory
AIIC(Australia)	:	Not in compliance with the inventory
DSL(Canada)	:	All components of this product are on the Canadian DSL
ENCS(Japan)	:	On the inventory, or in compliance with the inventory
KECI(Korea)	:	On the inventory, or in compliance with the inventory

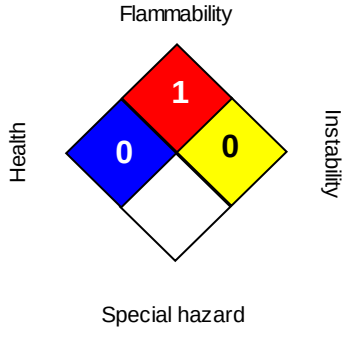
PICCS(Philippines)	:	On the inventory, or in compliance with the inventory
IECSC(China)	:	On the inventory, or in compliance with the inventory
NZIoC(New Zealand)	:	On the inventory, or in compliance with the inventory
REACH(European Union)	:	If purchased in Europe, complies with No 1907/2006 (REACH) or is exempted. If not, please contact Supplier/Importer.
CH INV(Switzerland)	:	Exempted as long as EU-REACH conditions are met. For further information, please contact: Manufacture, Importer, Supplier.
CCA/ARECS	:	If purchased in S. Korea, complies with K-REACH or is exempted. If not, please contact Supplier/Importer.
CICR(Türkiye)	:	For further information, please contact: Manufacturer, importer, supplier

16. OTHER INFORMATION

Further information

Registered trademark	:	SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates.
Prepared by	:	Product Stewardship

NFPA:



HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Disclaimer

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JP / EN

End of Safety Data Sheet