



## Safety Data Sheet

### 1 PRODUCT AND COMPANY IDENTIFICATION

Identification of the product	<b>VYLOSHOT</b>
Product Code	GM-955-R02
<b>SUPPLIER</b>	
Name	TOYOBO CO., LTD.
Section	Functional Polymers Production Control & Quality Assurance Department
Address	2-8 Dojima Hama 2-chome, Kita-Ku OSAKA 530-8230 JAPAN
Telephone No.	+81-6-6348-3615 (9am -6pm Japan Standard Time Mon-Fri)
Fax No.	+81-6-6348-3752
e-mail	osaka_vylon@toyobo.jp
Recommended use and Restrictions on use	Adhesion bond, painting material

### 2 HAZARD IDENTIFICATION

Most Important Hazards	Combustible with the existence of ignition source. Stable under usual environment.
Specific Hazards	Fumes or vapours generated from melting product or powder cause the irritation of respiratory organ and eyes.
GHS Classification	Not classified

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product (Substance/Preparation)	Mixture		
Chemical Name or Generic Name	Saturated polyester	Carbon black	Additive
CAS No.	Trade secret	Trade secret	Trade secret
Concentration	>98%	0.05-1.0%	approx. 1.1%
Ingredients Contributing to the Hazard	Substances classified as hazardous are less than 1%.		

### 4 FIRST-AID MEASURES

Inhalation	In case of irritation by inhaling fumes or gases generated from molten product, move affected person to fresh air and await recovery. If irritation persists, seek medical attention.
Skin Contact	In case of molten product, cool down and wash with cold water immediately. If irritation persists, seek medical attention
Eye Contact	In case of molten product, cool down and flush eyes with cold water at least for more than 15 minutes immediately. If irritation persists, seek medical attention.
Ingestion	Induce vomiting. If indisposition continues, seek medical attention.

### 5 FIRE-FIGHTING MEASURES

Extinguishing Media	Carbon dioxide, foam, dry chemical powder
Specific Hazards	Emits toxic gases (aldehyde, carbon monoxide) under imperfect combustion.
Protection of Fire-fighters	Wear self-contained breathing apparatus and protective clothing.

### 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid slipping on pellets or powder. Few adverse human health effects are anticipated.
Environmental Precautions	Do not waste in environment, for the product stays for a long time. Prevent sea animals and birds from ingestion.
Methods for Cleaning up	Sweep-up thoroughly with a vacuum-cleaner or a broom.



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### 7 HANDLING AND STORAGE

#### HANDLING

##### Technical Measures

Static electricity may be generated while handling. Since there is a possibility of breaking fire with static electricity, when the dangerous goods such as flammable organic solvents are handling, static electricity should be removed by neutralization apparatus or grounding, etc and set up a good ventilation and exhaust system in the work area. Handle carefully and do not wet the container. Do not keep product for a long period at high temperatures.

##### Precautions

Keep away from fire or heat.

##### Safe Handling Advice

Do not breathe fumes or vapours from molten products  
Do not touch molten product with unprotected hands.

#### STORAGE

##### Technical Measures

Do not make high piles of containers.

##### Storage Conditions

Keep away from flame and heat-source. Avoid direct sunlight especially after taking out the product from the container.

##### Incompatible Products

Strong acids, strong alkalines and strong oxidizers

##### Packaging Materials

Paper bag

### 8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

#### ENGINEERING MEASURES

A good ventilation and local exhaust system is necessary for melting or powder-generating operations. Eye washing apparatuses and showers should be provided near the work place.

#### PERSONAL PROTECTIVE EQUIPMENT

##### Respiratory Protection

In case of powder generating operations, wear a suitable dust mask.

In case of processing molten material, wear a suitable gas mask.

##### Hand Protection

In case of processing molten product, wear heat-protective gloves.

##### Eye Protection

In case of processing molten product, wear eye-protection goggles.

##### Skin and Body Protection

In case of processing molten product, wear long sleeves to prevent contact with skin.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Physical State

Solid, pellet

#### Colour

Black

#### Odour

None

#### pH

Not applicable

#### Melting Point

165°C (DSC method)

#### Decomposition Temperature

Above 200°C

#### Flash Point

Above 200°C

#### Explosion Properties

None at ambient temperature

#### Density

1.05 g/cm<sup>3</sup> (30°C)

#### Solubility

Less than 0.1% in water

#### Flammability

Soluble in chloroform, cyclohexanone, tetrahydrofuran

Combustible with the existence of ignition source.

### 10 STABILITY AND REACTIVITY

#### Stability

Stable

#### Possible Hazardous Reactions

None

#### Conditions to Avoid

Avoid open fire or heated environment of over 200°C.

#### Material to Avoid

Strong alkalines and compound reactive to polyester resins

#### Hazardous Decomposition Products

Aldehyde and carbon monoxide under combustion

### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

No information is available.

#### Local Effects

Fumes or vapours from molten materials cause eye and respiratory organ irritation.

### 12 ECOLOGICAL INFORMATION

#### Mobility

Unlikely to move in environment.

#### Persistence/Degradability

Persist for a long time in environment.

#### Bioaccumulation

Unlikely to occur.



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### 13 DISPOSAL CONSIDERATIONS

Waste from Residues Dispose of in accordance with all applicable local and national laws and regulations.  
Contaminated Packaging Dispose of as well as the material.

### 14 TRANSPORT INFORMATION

International Regulations Not classified  
UN Classification Number Follow all of the laws and regulations in your country.  
Specific Precautions Do not damage the container.  
Keep the container dry.  
Handle the container with care.  
In case of spillage, sweep up immediately to prevent people from slipping.  
Pay attention not to pile-up containers leading to possible collapse.

### 15 REGULATORY INFORMATION

Survey for registration in inventories of exiting chemical substances.

Country / Valid Inventory	Saturated polyester	Carbon black	Additive
JAPAN / ENCS	Listed	Listed	Listed
USA / TSCA	Not listed *	Listed	Listed
CANADA / DSL or NDSL	Not listed	Listed on DSL	Listed on DSL
EU / REACH	Monomers are pre-registered	Under survey	Under survey
KOREA / ECL	Not listed	Listed	Listed
CHINA / IECSC	Not listed	Listed	Listed
TAIWAN / ECN	Listed	Listed	Listed
PHILIPPINES / PICCS	Not listed	Listed	Not listed
AUSTRALIA / AICS	Not listed	Listed	Listed
NEW ZEALAND / NZIoC	Not listed	Listed	Not listed

\*The product meets the term of "Polymer Exemption".

Follow all of the laws and regulations in your country.

### 16 OTHER INFORMATION

Notice The information in this SDS, to the best of our knowledge, is accurate and correct.  
However, TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information.  
The SDS is subject to revision as new information becomes available.