SECTION 1: PRODUCT IDENTIFICATION

1.1 GHS product identifier: GLASST WHITE UNIVERSAL PROTECTIVE COATING 20002532

1.2 Recommended chemical use and restrictions:

Relevant uses: Temporary surfaces protection. Used by professional users only.

Not recommended uses: Any use not specified in this section or in section 7.3.

1.3 Details of the supplier:

GLASST INNOVATION COMPANY
Carrera 32 # 13 – 49, Of 504
050021.- Antioquia - Colombia
Tfn.: 57 4 444 95 77
ventas@glasst.co

1.4 Emergency telephone number: CISTEMA SURA Colombia at 018000 51 14 14, outside Colombia (0574) 4444578

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of substance or mixture:

GHS:

The product has been classified in accordance with Decree 1496 of 2018, which adopts the Globally Harmonized System of Classification and Labeling of Chemicals and establishes other provisions for chemical safety.

2.2 GHS label elements including precautionary statements:

GHS:

None

2.3 Other hazards not leading to a classification:

Not relevant

SECTION 3: COMPOSITION/INFORMATION ON COMPONENTS

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical description: Chemical based mixture

Components:

According to Decree 1496 of 2018, the product presents:

Identification	Chemical name/classification	Concentrati
CAS: 13463-67-7	**Titanium dioxide**	**2.5 - <10 %**
CAS 68610-51-5	**Phenol, 4-methyl-, dicyclopentadiene and isobutylene reaction products**	**1 - <2.5 %**

For further information on the hazard of the substances see sections 11, 12, and 16. The carcinogenicity classification of the substances has been established based on the IARC monographs in accordance with the GHS classification system, for information on the IARC classification see section 11.

SECTION 4: FIRST AID MEASURES

4.1 Description of recommended first aid measures:

Symptoms as a consequence of poisoning may occur subsequently after exposure, so in case of doubt, direct exposure to the chemical or persistent discomfort, seek medical attention and show the SDS for this product.

Inhalation:

SECTION 4: FIRST AID MEASURES (continued)

This product does not contain substances classified as hazardous by inhalation. However, in case of symptoms of intoxication, move the affected person from the area of exposure to fresh air at once. Seek medical attention if symptoms worsen or persist.

Skin contact:

In case of contact, it is recommended to clean the affected area with water and neutral soap. In case of skin alterations (itching, redness, rashes, blisters...), seek medical advice with this Safety Data Sheet.

Eye contact:

This product does not contain substances classified as hazardous in contact with eyes. Rinse for at least 15 minutes with plenty of water at room temperature and avoid rubbing or closing the eyes.

Ingestion/aspiration:

In case of ingestion, seek immediate medical attention by showing the SDS for this product.

4.2 Most important symptoms/effects, both acute and delayed:

Acute and delayed effects are as listed in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Suitable extinguishing agents:

The product is not flammable under normal storage, handling, and use conditions. In case of ignition as a result of improper handling, storage, or use preferably use multi-purpose powder extinguishers (ABC powder). It is NOT RECOMMENDED to use water as an extinguishing agent.

5.2 Specific chemical hazards:

As a result of combustion or thermal decomposition, the reaction might generate by-products which may be highly toxic and, consequently, may present a heightened health hazard.

5.3 Special measures to be taken by firefighters:

Depending on the magnitude of the fire, it may be necessary to wear full protective clothing and self-contained breathing apparatus. Have a minimum number of emergency facilities or emergency response elements (fire blankets, and portable first aid kit, etc.).

Additional provisions:

Act in accordance with the Indoor Emergency Plan and the Information Sheets on what action to take in the event of accidents and other emergencies. Suppress any source of ignition. In case of fire, cool containers and storage tanks of all the potentially flammable or explosive products due to high temperatures. Avoid spillage of products used to extinguish the fire in the aquatic environment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures:

Isolate leaks as long as it does not pose an additional risk to people performing this function. Potential exposure to spilled products requires the use of personal protective equipment (see section 8). Evacuate the area and keep unprotected personnel away.

6.2 Environmental precautions:

Products not classified as hazardous to the environment should be kept away from drains, surfaces, and groundwater.

6.3 Methods and materials for containment and cleaning up:

Recommended:

Absorb spillage with sand or inert absorbent and transfer to a safe place. Do not absorb in sawdust or other combustible absorbents. For disposal considerations, refer to section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE (continued)

7.1 Precautions for safe handling:

A.- General precautions

Comply with current legislation for prevention of occupational hazards. Keep containers hermetically sealed. Control spills and residues by eliminating them with safe methods (section 6). Avoid free spillage from the container. Maintain order and cleanliness where hazardous products are handled.

B.- Technical recommendations for fire and explosion prevention.
The product is not flammable under normal storage, handling, and use conditions. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that could affect flammable products. See section 10 for conditions and materials to be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks.

Do not eat, drink, or smoke in work areas; wash hands after each use and remove contaminated clothing and protective equipment before entering eating areas.

D.- Technical recommendations to prevent environmental risks.

It is advisable to have absorbent material in the vicinity of the product (see section 6.3).

7.2 Conditions for safe storage, including any incompatibilities:

A.- Handling and storage measures.

Minimum Temperature:	41 °F (5°C) Keep from freezing
Maximum Temperature:	Store below 100 °F (38°C)
Maximum Time:	12 months

B.- General storage conditions.

Avoid heat sources, radiation, static electricity, and contact with food. For additional information see section 10.5.

7.3 Specific end use(s):

Except for the indications already specified, no special recommendations need to be added as to the uses of this product.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters:

Substance has an occupational exposure limit value to be monitored in the working environment (ACGIH):

Identification	Environmental limit values		
Titanium dioxide CAS: 13463-67-7	TLV-TWA TLV-STEL		10 mg/m³

8.2 Appropriate engineering controls:

A.- Individual protective measures, such as personal protective equipment (PPE).

As a preventive measure, the use of basic personal protective equipment is recommended. For further information on personal protective equipment (storage, use, cleaning, maintenance, and protection class...) please refer to the information leaflet provided by the PPE manufacturer. The indications contained in this point refer to the undiluted product. The protection measures for diluted products may vary depending on the degree of dilution, use, and method of application, etc. In order to determine the obligation to install emergency showers and/or eyewashes in warehouses, the applicable regulations for the storage of chemical products should be taken into account. For more information see sections 7.1 and 7.2.
All the information included here is a recommendation and needs to be specified by the occupational risk prevention services as it is not known what additional prevention measures the company may have in place.

B.- Respiratory protection.

The use of protective equipment will be necessary in the case of mist formation or in the case of exceeding the occupational exposure limits if they exist (See Section 8.1)

C.- Specific hand protection.

Pictogram	PPE	Comments
 Mandatory hand	Protective gloves	Replace gloves at any sign of deterioration. For prolonged periods of exposure to the product for professional/industrial users, the use of chemical protective gloves is recommended.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As the product is a mixture of different materials, the resistance of the glove material cannot be reliably calculated in advance and must therefore be checked prior to application.

D.- Eye and face protection

Pictogram	PPE	Comments
 Mandatory face protection	Safety glasses against splashes and/or splattering	Clean daily and disinfect periodically according to manufacturer's instructions. Recommended for use in case of splashing hazard.

E.- Body Protection

Pictogram	PPE	Comments
	Work clothes	Replace at any sign of deterioration. For prolonged periods of exposure to the product for professional/industrial users, chemical protective work clothing is recommended.
	Slip-resistant work shoes	Replace at any sign of deterioration.

F.- Complementary emergency measures.

Emergency measures	Rules	Emergency measures	Rules
 Emergency Shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

It is recommended to avoid spillage of both the product and its container in the environment. For additional information see section 7.1

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY CHARACTERISTICS

9.1 Information on basic physical and chemical properties:

For complete information, see product data sheet/specification sheet.

Appearance:

Physical state at 68 °F (20°C):	Liquid
Aspect:	Not determined
Color:	Not determined
Odor:	Characteristic
Olfactory threshold:	Not relevant *

Volatility:

Boiling temperature at atmospheric pressure:	212 - 4046 °F (100 - 2230°C)
Vapor pressure at 68 °F (20°C):	2299 Pa
Vapor pressure at 122 °F (50°C):	12112,6 Pa (12,11 kPa)
Evaporation rate at 68 °F (20°C):	Not relevant *

Characterization of the product:

Density at 68 °F (20°C):	70.2 lb/ft³ (1135,7 kg/m³)
Relative density at 68 °F (20°C):	0.071 lb/ft³ (1,136 kg/m³)
Dynamic viscosity at 68 °F (20°C):	Not relevant *
Kinematic viscosity at 68 °F (20°C):	Not relevant *
Kinematic viscosity at 104 °F (40°C):	Not relevant *

*Not relevant due to the nature of the product because no characteristic information of its hazardousness is provided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY CHARACTERISTICS (continue)

Concentration:	Not relevant *
pH:	Not relevant *
Vapor density at 68 °F (20°C):	Not relevant *
Partition coefficient n-octanol/water at 68 °F (20°C):	Not relevant *
Solubility in water at 68 °F (20°C):	Not relevant *
Solubility property:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *
Explosive properties:	Not relevant *
Oxidizing properties:	Not relevant *
Flammability:	
Flash point:	Non-flammable (>199.4 °F (93 °C))
Flammability (solid, gas):	Not relevant *
Auto-ignition temperature:	428 °F (220 °C)
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *
Explosiveness:	
Lower explosive limit:	Not relevant *
Upper explosive limit:	Not relevant *

9.2 Additional Information:

Surface tension at 68 °F (20°C):	Not relevant *
Refractive index:	Not relevant *

*Not relevant due to the nature of the product because no characteristic information of its hazardousness is provided.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected if the technical instructions for chemical storage are followed. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling, and use.

10.3 Possibility of hazardous reactions:

Under the conditions indicated, no hazardous reactions are expected that could result in excessive pressure or temperatures.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and Friction	Contact with the air	Heating	Solar light	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials

Ácidos	Agua	Materias comburentes	Materias combustibles	Otros
Avoid strong acids	Not applicable	Not applicable	Not applicable	Not applicable

10.6 Hazardous decomposition products:

See section 10.3, 10.4 and 10.5 for decomposition products specifically. Depending on decomposition conditions, complex mixtures of chemicals may be released as a result of decomposition: carbon dioxide (CO_2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on possible routes of exposure:

There is no experimental data available on the product itself concerning toxicological properties.

Hazardous effects on health:

In case of repeated, prolonged exposure, or at concentrations above the occupational exposure limits, adverse health effects may occur depending on the route of exposure:

A- Ingestion (acute effect):

- Acute toxicity: In view of the available data, the classification criteria are not met, and no substances are classified as hazardous by ingestion. For further information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, and no substances are classified as hazardous by this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity: In view of the available data, the classification criteria are not met, and no substances are classified as hazardous by inhalation. For further information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, and no substances are classified as hazardous by this effect. For further information see section 3.

C- Skin and eye contact (acute effect):

- Skin contact: In view of the available data, the classification criteria are not met, and no substances are classified as hazardous by skin contact. For further information see section 3.
- Eye contact: Based on available data, the classification criteria are not met and no substances are classified as hazardous by eye contact. For further information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

-Carcinogenicity: Based on available data, the classification criteria are not met.
IARC: Titanium Dioxide Quartz (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, and there are no substances classified as hazardous for this effect. For further information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met. For further information see section 3.

E- Sensitization effects:

- Respiratory: In view of the available data, the classification criteria are not met, and no substances are classified as hazardous with sensitizing effects. For further information see sections 2, 3 and 15.
- Cutaneous: Based on available data, the classification criteria are not met, and no substances are classified as hazardous for this effect. For further information see section 3.

F- Specific target organ toxicity (STOT)-single exposure:
In view of the available data, the classification criteria are not met, and no substances are classified as hazardous for this effect. For further information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, and no substances are classified as hazardous for this effect. For further information see section 3.
- Skin: Based on available data, the classification criteria are not met, and no substances are classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

In view of the available data, the classification criteria are not met, and no substances are classified as hazardous by this effect. For further information see section 3.

Additional information:

CAS 13463-67-7 Titanium Dioxide: IARC lists this substance as a possible human carcinogen (Group 2B), indicating that there is sufficient evidence to consider it a carcinogen in animals but insufficient evidence to consider it a human carcinogen.
The IARC monograph for this substance indicates that there is no significant exposure to titanium dioxide during normal use of products in which titanium dioxide is permanently bonded to other materials, such as paints (Ref: IARC Monograph, Vol. 93, 2010).
Repeated sanding of dry film surfaces may produce a risk of overexposure to dust depending on the duration and level of sanding, and appropriate protective measures should be taken to avoid this.

Substance-specific toxicological information:

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute Toxicity		Class
Titanium dioxide CAS: 13463-67-7	DL50 oral	10000 ppm	Rate
	DL50 dermal	10000 ppm	Advice
	CL50 inhalation	Not relevant	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and CAS: 68610-51-5	DL50 oral	5500 ppm	Rate
	DL50 dermal	Not relevant	
	CL50 inhalation	Not relevant	

SECTION 12: ECOTOXICOLOGICAL INFORMATION

12.1 SOIL POLLUTION POTENTIAL: no significant health risks.
12.2 WATER POLLUTION POTENTIAL: not hygroscopic. Exposure to water will cause mold.
12.3 AIR POLLUTION POTENTIAL: No ventilation required.

SECTION 13: INFORMATION CONCERNING PRODUCT DISPOSAL

13.1 **Elimination methods:**

Waste management (disposal and recovery):
Consult the authorized waste manager for recovery and disposal operations. If the container has been in direct contact with the product, it should be managed in the same way as the product itself, otherwise it should be managed as non-hazardous waste. Discharge into watercourses is not recommended. See section 6.2.

Legislative provisions related to waste management:

Legislation related to waste management:

Decree 4741 of 2005, which partially regulates the prevention and management of hazardous waste generated within the framework of integrated waste management.

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 **Specific safety, health, and environmental provisions for the product concerned:**

NTP (National Toxicology Program): Not relevant

Special provisions for the protection of people or the environment:

It is recommended that the information compiled in this material safety data sheet be used as input data in a risk assessment of the local circumstances in order to establish the necessary risk prevention measures for the handling, use, storage, and disposal of this product.

Other legislations:

SECTION 15: REGULATORY INFORMATION (continued)

Resolution 0312 of 2019 - New minimum OSHMS standards.
CONPES 3868 - Risk management policy associated with the use of chemical substances.
Decree 1079 of 2015 - single regulatory decree of the transport sector.
NTC 1692 -Transport of dangerous goods. Definitions, classification, marking, labeling, and placarding.
NTC 4532- Transport of dangerous goods. Emergency cards for transport of materials. Elaboration
Decree number 4741 of 2005
Decree 1299 of 2008 - Regulates the department of environmental management of companies at the industrial state level.
Decree 321 of 1999 - Adopts the National Contingency Plan against spills of hydrocarbons, derivatives, and harmful substances.
NTC 4702 - 1 - Packaging and Containers for Transportation of Class 1 Dangerous Goods. Explosives
NTC 4702 - 2 - Packaging and Containers for Transport of Dangerous Goods Class 2. Gases
NTC 4702 - 3 - Packaging and Containers for Transport of Dangerous Goods Class 3. Flammable Liquids
NTC 4702 - 4 - Packaging and Containers for Transport of Dangerous Goods Class 4. Flammable Solids, Substances that present a risk of spontaneous combustion, and substances that in contact with water give off flammable gases.
NTC 4702 - 5 - Packaging and Containers for Transport of Dangerous Goods Class 5. Combustible Substances and Organic Peroxides.
NTC 4702 - 6 - Packaging and Containers for Transport of Dangerous Goods Class 6. Toxic and Infectious Substances.
NTC 4702 - 8 - Packaging and Containers for Transport of Dangerous Goods Class 8. Corrosive Substances
NTC 4702 - 9 - Packaging and Containers for Transport of Dangerous Goods Class 9. Miscellaneous Dangerous Substances

SECTION 16: OTHER INFORMATION

Legislation applicable to Material Safety Data Sheets:
This material safety data sheet has been developed in accordance with Colombian technical standard NTC 4435:2010.
Texts of the legislative phrases referred to in section 3:
The phrases indicated do not refer to the product itself, and they are for information purposes only and refer to the individual components listed in section 3.
GHS:
Not relevant

Training recommendations:
Minimum training in occupational risk prevention is recommended for personnel who will handle this product in order to facilitate the understanding and interpretation of this material safety data sheet, as well as the product labeling.

Main bibliographic sources:
Colombian Institute of Technical Standards and Certification (ICONTEC)
IARC: International Agency for Research on Cancer.
OSHA: Occupational Safety and Health Administration, U.S. Department of Labor
NTP: National Toxicology Program
TOXNET: Toxicology data network

Abbreviations and acronyms:

IMDG: International Maritime Dangerous Goods Code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
COD: Chemical Oxygen Demand
BOD5: Biological Oxygen Demand at 5 days
BCF: bioconcentration factor
LD50: lethal dose 50
LC50: lethal concentration 50
EC50: effective concentration 50
Log POW: logarithm of octanol-water partition coefficient
Koc: partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge, and legislation in force at European and national level, and the accuracy of this information cannot be guaranteed. This information cannot be considered as a guarantee of the properties of the product because it is simply a description of the safety requirements. The methodology and working conditions of the end users are beyond our knowledge and control, and it is always the users ultimate responsibility to take the necessary measures to comply with the legislative requirements for handling, storage, use and disposal of chemicals. The information in the material safety data sheet relates only to this product, which should not be used for purposes other than those specified.

END OF MATERIAL SAFETY DATA SHEET