# SHELL GADUS (TOR Armor)

Safety Data Sheet

According to the NOM-018-STPS-2015
Issue date: 12/13/2021 Revision date: 8/29/2022 Supersedes: 3/7/2022 Version: 2.2

## SECTION 1: Identification of the hazardous chemical or mixture and of the supplier or manufacturer

### 1.1. GHS product identifier

Product form : Mixture
Trade name : SHELL GADUS (TOR Armor)

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

No additional information available

### 1.4. Supplier's details

**Manufacturer**
Shell & Whitmore Reliability Solutions, LLC
930 Whitmore Drive
Rockwall, Texas, 75087
USA
T 1.800.381.6585 or 1.972.771.1000

### 1.5. Emergency phone number

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1.800.424.9300
Outside USA and Canada: +1.703.527.3887
(collect calls accepted)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GHS MX classification

Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412 Harmful to aquatic life with long lasting effects.
Full text of H-statements: see section 16

### 2.2. Label elements

#### GHS MX labelling

Hazard statements (GHS MX) : H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (GHS MX) : P273 - Avoid release to the environment.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards which do not result in classification

Adverse physicochemical, human health and environmental effects : To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | GHS MX classification |
|---|---|---|---|
| glycerol | CAS-No.: 56-81-5 | 30.75 | Acute Tox. 4 (Inhalation:dust,mist), H332 |
| talc | CAS-No.: 14807-96-6 | 12.375 | Acute Tox. 5 (Dermal), H313 |
| Barium Sulfate | CAS-No.: 7727-43-7 | 3.995 | Aquatic Acute 2, H401<br>Aquatic Chronic 2, H411 |
| Alcohols, C12-14 Secondary, ethoxylated | CAS-No.: 84133-50-6 | 3.2495 | Acute Tox. 4 (Oral), H302 |
| Alkyl Quaternary ammonium clay | CAS-No.: Proprietary | 1.34 | Acute Tox. 5 (Dermal), H313 |

## SECTION 4: First aid measures

### 4.1. Description of necessary first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms/effects, acute and delayed

No additional information available

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective actions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Measures to be taken in case of accidental spillage or accidental leakage

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Exercise caution. Spill area may be slippery.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| talc (14807-96-6) | |
|---|---|
| **Mexico - Occupational Exposure Limits** | |
| Local name | Talco sin fibras de asbesto |
| OEL STEL | 2 mg/m³ Fracción respirable; Este valor es para la materia particulada que contenga menos de un 1% de sílice cristalina y sin asbesto |
| Remark (MX) | Función pulmonar; fibrosis pulmonar; A4 (No clasificado como carcinógeno en humano Agente que puede ser cancerígeno para humanos pero que no puede ser concluyentemente asegurado por falta de datos. Estudios in vitro o animales no proveen indicaciones de carcinogenicidad suficientes para clasificar al agente en una de las otras categorías) |
| Regulatory reference | NOM-010-STPS-2014 |

| Barium Sulfate (7727-43-7) | |
|---|---|
| **Mexico - Occupational Exposure Limits** | |
| Local name | Sulfato de bario |
| OEL TWA [1] | 10 mg/m³ |
| Remark (MX) | Neumoconiosis |
| Regulatory reference | NOM-010-STPS-2014 |

| glycerol (56-81-5) | |
|---|---|
| **Mexico - Occupational Exposure Limits** | |
| Local name | Glicerina |
| OEL TWA [1] | 10 mg/m³ nieblas |
| Remark (MX) | Irritación del tracto respiratorio superior |
| Regulatory reference | NOM-010-STPS-2014 |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Neoprene or nitrile rubber gloves

| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
|---|---|---|---|---|---|
| Disposable gloves | Nitrile rubber (NBR), Neoprene rubber (HNBR) | 2 (> 30 minutes) | 0.3 mm - 0.6 mm | | |

Eye protection : Wear eye protection
Skin and body protection : Wear suitable protective clothing
Respiratory protection : No respiratory protection needed under normal use conditions

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Grease.
Colour : dark grey
Odour : Mild odor
Odour threshold : No data available
pH : 7.5 – 8
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : Not applicable
Boiling point : No data available
Flash point : Not applicable.
Flammability (solid, gas) : Not flammable
Auto-ignition temperature : Not applicable
Decomposition temperature : No data available
Vapour pressure : No data available
Relative vapour density at 20°C : No data available
Relative density : No data available
Solubility : Slightly soluble.
Partition coefficient n-octanol/water (Log Pow) : No data available
Partition coefficient n-octanol/water (Log Kow) : No data available
Viscosity, kinematic : > 20.5 $mm^2/s$ @ 40° C
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : Not applicable

### 9.2. Other information

VOC content : < 0.1 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

| Alkyl Quaternary ammonium clay (Proprietary) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rat | > 2000 mg/kg |
| ATE MX (dermal) | 2500 mg/kg bodyweight |

| Alcohols, C12-14 Secondary, ethoxylated (84133-50-6) | |
|---|---|
| LD50 oral rat | > 412 mg/kg |
| LD50 dermal rat | > 14000 mg/kg |
| LC50 Inhalation - Rat (Dust/Mist) | 1.06 mg/l/4h |
| ATE MX (oral) | 500 mg/kg bodyweight |
| ATE MX (dust,mist) | 1.06 mg/l/4h |

| talc (14807-96-6) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rat | > 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| LC50 Inhalation - Rat | > 2.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s)) |
| LC50 Inhalation - Rat (Dust/Mist) | > 2.1 mg/l Source: ECHA |
| ATE MX (dermal) | 2500 mg/kg bodyweight |

| Barium Sulfate (7727-43-7) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s)) |

| glycerol (56-81-5) | |
|---|---|
| LD50 oral rat | 27200 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral) |
| LD50 dermal | 56750 mg/kg (4 day(s), Guinea pig, Male / female, Experimental value, Dermal, 14 day(s)) |
| LD50 dermal rabbit | > 10000 mg/kg |
| LC50 Inhalation - Rat | > 2.75 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Converted value, Inhalation (vapours)) |
| LC50 Inhalation - Rat (Vapours) | > 2.75 mg/l Source: ECHA |
| LC50 Inhalation - Rat (Dust/Mist) | > 142 mg/l/4h |
| ATE MX (oral) | 27200 mg/kg bodyweight |
| ATE MX (dermal) | 56750 mg/kg bodyweight |
| ATE MX (dust,mist) | 1.5 mg/l/4h |

Skin corrosion/irritation : Not classified
pH: 7.5 – 8

| talc (14807-96-6) | |
|---|---|
| pH | 9 |

| Barium Sulfate (7727-43-7) | |
|---|---|
| pH | 7 (5 %) |

| glycerol (56-81-5) | |
|---|---|
| pH | 10.5 |

Serious eye damage/irritation : Not classified
pH: 7.5 – 8

| talc (14807-96-6) | |
|---|---|
| pH | 9 |

| Barium Sulfate (7727-43-7) | |
|---|---|
| pH | 7 (5 %) |

| glycerol (56-81-5) | |
|---|---|
| pH | 10.5 |

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

| talc (14807-96-6) | |
|---|---|
| IARC group | 3 - Not classifiable |

| Barium Sulfate (7727-43-7) | |
|---|---|
| NOAEL (chronic, oral, animal/male, 2 years) | 60 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Effect type: carcinogenicity (migrated information) |
| NOAEL (chronic, oral, animal/female, 2 years) | 75 mg/kg bodyweight Animal: rat, Animal sex: female, Remarks on results: other:Effect type: carcinogenicity (migrated information) |

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

| SHELL GADUS (TOR Armor) | |
|---|---|
| Viscosity, kinematic | > 20.5 mm²/s @ 40° C |

| Alkyl Quaternary ammonium clay (Proprietary) | |
|---|---|
| Animal studies and expert judgment for classification | False |

| Alcohols, C12-14 Secondary, ethoxylated (84133-50-6) | |
|---|---|
| Animal studies and expert judgment for classification | False |

| talc (14807-96-6) | |
|---|---|
| Animal studies and expert judgment for classification | False |

| Barium Sulfate (7727-43-7) | |
|---|---|
| Animal studies and expert judgment for classification | False |

| glycerol (56-81-5) | |
|---|---|
| Viscosity, kinematic | 1119.746 mm²/s |
| Animal studies and expert judgment for classification | False |

## SECTION 12: Ecological information

### 12.1. Toxicity

| | | |
|---|---|---|
| Ecology - general | : | The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short–term (acute) | : | Not classified |
| Hazardous to the aquatic environment, long–term (chronic) | : | Harmful to aquatic life with long lasting effects. |

| talc (14807-96-6) | |
|---|---|
| LC50 - Fish [1] | 89581 mg/l (ECOSAR v1.00, 96 h, Pisces, Fresh water, QSAR) |
| EC50 96h - Algae [1] | 7203 mg/l (ECOSAR v1.00, Algae, Fresh water, QSAR) |

| Barium Sulfate (7727-43-7) | |
|---|---|
| LC50 - Fish [1] | > 174 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP) |
| EC50 - Crustacea [1] | 32 mg/l |
| ErC50 algae | > 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration) |
| EC50 72h - Algae [1] | > 1.15 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| EC50 72h - Algae [2] | > 30.07 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |

| glycerol (56-81-5) | |
|---|---|
| LC50 - Fish [1] | 54000 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| EC50 - Crustacea [1] | > 10000 mg/l (24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) |

### 12.2. Persistence and degradability

| Alcohols, C12-14 Secondary, ethoxylated (84133-50-6) |
|---|
| Not rapidly degradable |

| talc (14807-96-6) | |
|---|---|
| Not rapidly degradable | |
| Persistence and degradability | Biodegradability in soil: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| Barium Sulfate (7727-43-7) | |
|---|---|
| Not rapidly degradable | |
| Persistence and degradability | Not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| glycerol (56-81-5) | |
|---|---|
| Not rapidly degradable | |
| Persistence and degradability | Not readily biodegradable in water. |

| glycerol (56-81-5) | |
|---|---|
| Biochemical oxygen demand (BOD) | 0.87 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.16 g $O_2$/g substance |
| ThOD | 1.217 g $O_2$/g substance |
| BOD (% of ThOD) | 0.71 |

### 12.3. Bioaccumulative potential

| talc (14807-96-6) | |
|---|---|
| BCF - Other aquatic organisms [1] | 3.162 l/kg (BCFBAF v3.01, Fresh water, QSAR) |
| Partition coefficient n-octanol/water (Log Pow) | -9.4 (QSAR, KOWWIN, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| **Barium Sulfate (7727-43-7)** | |
| BCF - Fish [1] | 1.2 – 74.4 l/kg (Lepomis macrochirus, Fresh water, Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| **glycerol (56-81-5)** | |
| Partition coefficient n-octanol/water (Log Pow) | -1.75 (Experimental value, Equivalent or similar to OECD 107, 25 °C) |

### 12.4. Mobility in soil

| talc (14807-96-6) | |
|---|---|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.5 (log Koc, SRC PCKOCWIN v2.0, QSAR) |
| **Barium Sulfate (7727-43-7)** | |
| Ecology - soil | No (test) data on mobility of the substance available. |
| **glycerol (56-81-5)** | |
| Surface tension | 0.0634 N/m (20 °C, 1000 g/l) |

### 12.5. Other adverse effects

Ozone : Not classified

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with NOM / UN RTDG / IMDG / IATA

| NOM | UN RTDG | IMDG | IATA |
|---|---|---|---|
| **14.1. UN number** | | | |
| Not regulated for transport | | | |
| **14.2. Proper Shipping Name** | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |

| NOM | UN RTDG | IMDG | IATA |
|---|---|---|---|
| **14.3. Transport hazard class(es)** | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |
| **14.4. Packing group** | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |
| **14.5. Environmental hazards** | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |
| No supplementary information available | | | |

### 14.6. Special precautions for user

**NOM**
No data available

**UN RTDG**
No data available

**IMDG**
No data available

**IATA**
No data available

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulations

**Alcohols, C12-14 Secondary, ethoxylated (84133-50-6):**
Listed in the INSQ (National Inventory of Chemical Substances)

**talc (14807-96-6):**
Listed in the INSQ (National Inventory of Chemical Substances)

**Barium Sulfate (7727-43-7):**
Listed in the INSQ (National Inventory of Chemical Substances)

**glycerol (56-81-5):**
Listed in the INSQ (National Inventory of Chemical Substances)

#### 15.2. International regulations

**Alkyl Quaternary ammonium clay (Proprietary):**
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

**Alcohols, C12-14 Secondary, ethoxylated (84133-50-6):**
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the Canadian DSL (Domestic Substances List)

**talc (14807-96-6):**
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the Canadian DSL (Domestic Substances List)

**Barium Sulfate (7727-43-7):**
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the Canadian DSL (Domestic Substances List)

**glycerol (56-81-5):**
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the Canadian DSL (Domestic Substances List)

## SECTION 16: Other information including those related to the preparation and updating of safety data sheets

| | | |
|---|---|---|
| Issue date | : | 13/12/2021 |
| Revision date | : | 29/08/2022 |
| Supersedes | : | 07/03/2022 |

| Full text of H-statements | |
|---|---|
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H303 | May be harmful if swallowed |
| H312 | Harmful in contact with skin. |
| H313 | May be harmful in contact with skin |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |
| H400 | Very toxic to aquatic life. |
| H401 | Toxic to aquatic life |
| H402 | Harmful to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

Safety Data Sheet (SDS), Mexico

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.