



## SAFETY DATA SHEET SILVER TANK

### 1. Identification

#### Product identifier

**Product name** SILVER TANK

**Product number** 4707

#### Details of the supplier of the safety data sheet

**Supplier** SIFCO Applied Surface Concepts  
5708 E. Schaaf Road  
Independence, Ohio 44131  
U.S.A.  
Tel.: +1 216-524-0099  
Fax: +1 216-524-6331  
E-Mail: [info@sifcoasc.com](mailto:info@sifcoasc.com)

#### Emergency telephone number

**Emergency telephone** CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887

### 2. Hazard(s) identification

#### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Acute Tox. 2 - H300 Acute Tox. 2 - H310 Acute Tox. 2 - H330 Skin Irrit. 2 - H315 Eye Dam. 1 - H318

**Environmental hazards** Aquatic Chronic 2 - H411

#### Label elements

##### Pictogram



##### Signal word

Danger

##### Hazard statements

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H411 Toxic to aquatic life with long lasting effects.

## SILVER TANK

### Precautionary statements

P260 Do not breathe vapor/ spray.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P310 If swallowed: Immediately call a poison center/ doctor.  
 P302+P352 If on skin: Wash with plenty of water.  
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/ container in accordance with national regulations.  
 P264 Wash skin thoroughly after handling.  
 P284 [In case of inadequate ventilation] wear respiratory protection.

### 3. Composition/information on ingredients

#### Mixtures

|  |
|--|
| <b>SILVER CYANIDE</b> <span style="float: right;">5-10%</span><br>CAS number: 506-64-9<br>M factor (Acute) = 1                      M factor (Chronic) = 1   |
| <b>Classification</b><br>Acute Tox. 2 - H300<br>Acute Tox. 1 - H310<br>Acute Tox. 2 - H330<br>Aquatic Acute 1 - H400<br>Aquatic Chronic 1 - H410   |
| <b>POTASSIUM HYDROXIDE</b> <span style="float: right;">1-5%</span><br>CAS number: 1310-58-3<br><b>Classification</b><br>Acute Tox. 4 - H302<br>Skin Corr. 1A - H314<br>Eye Dam. 1 - H318   |
| <b>POTASSIUM CYANIDE</b> <span style="float: right;">1-5%</span><br>CAS number: 151-50-8<br>M factor (Acute) = 1                      M factor (Chronic) = 1<br><b>Classification</b><br>Acute Tox. 1 - H300<br>Acute Tox. 1 - H310<br>Acute Tox. 1 - H330<br>Aquatic Acute 1 - H400<br>Aquatic Chronic 1 - H410 |

The full text for all hazard statements is displayed in Section 16.

### 4. First-aid measures

#### Description of first aid measures

## SILVER TANK

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person. Get medical attention.  |
| <b>Ingestion</b>    | Do not induce vomiting. Never give anything by mouth to an unconscious person. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention immediately.   |
| <b>Skin Contact</b> | Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.  |
| <b>Eye contact</b>  | It is recommended that suitable facilities for quick drenching or flushing of the eyes and body be provided within the work area for immediate emergency use. Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. |

### **Most important symptoms and effects, both acute and delayed**

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Toxic: danger of serious damage to health by prolonged exposure through inhalation. Coughing, chest tightness, feeling of chest pressure.   |
| <b>Ingestion</b>    | Toxic: danger of serious damage to health by prolonged exposure if swallowed. Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract. May cause stomach pain or vomiting. |
| <b>Skin contact</b> | May cause skin irritation. May cause sensitization or allergic reactions in sensitive individuals. Prolonged contact may cause redness, irritation and dry skin.  |
| <b>Eye contact</b>  | May cause blurred vision and serious eye damage. Causes serious eye irritation. Immediate first aid is imperative.  |

### **Indication of immediate medical attention and special treatment needed**

|                             |                              |
|-----------------------------|------------------------------|
| <b>Notes for the doctor</b> | No specific recommendations. |
|-----------------------------|------------------------------|

## **5. Fire-fighting measures**

### **Extinguishing media**

|                                     |   |
|-------------------------------------|---|
| <b>Suitable extinguishing media</b> | The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. |
|-------------------------------------|---|

### **Special hazards arising from the substance or mixture**

|                         |                        |
|-------------------------|------------------------|
| <b>Specific hazards</b> | Toxic gases or vapors. |
|-------------------------|------------------------|

### **Advice for firefighters**

|  |   |
|--|---|
| <b>Protective actions during firefighting</b>        | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. |
| <b>Special protective equipment for firefighters</b> | Use protective equipment appropriate for surrounding materials.                                       |

## **6. Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

|                             |  |
|-----------------------------|--|
| <b>Personal precautions</b> | Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate general and local exhaust ventilation. |
|-----------------------------|--|

### **Environmental precautions**

|                                  |  |
|----------------------------------|--|
| <b>Environmental precautions</b> | Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). |
|----------------------------------|--|

### **Methods and material for containment and cleaning up**

## SILVER TANK

|                                    |  |
|------------------------------------|--|
| <b>Methods for cleaning up</b>     | Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. DO NOT touch spilled material! Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage. |
| <b>Reference to other sections</b> | Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.  |

### 7. Handling and storage

#### Precautions for safe handling

|                          |   |
|--------------------------|---|
| <b>Usage precautions</b> | Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation. |
|--------------------------|---|

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

|                            |  |
|----------------------------|--|
| <b>Storage precautions</b> | Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight. |
|----------------------------|--|

|                      |                |
|----------------------|----------------|
| <b>Storage class</b> | Toxic storage. |
|----------------------|----------------|

#### Specific end uses(s)

|                            |   |
|----------------------------|---|
| <b>Specific end use(s)</b> | The identified uses for this product are detailed in Section 1. |
|----------------------------|---|

### 8. Exposure Controls/personal protection

#### Control parameters

#### Occupational exposure limits

##### POTASSIUM HYDROXIDE

Ceiling exposure limit: ACGIH 2 mg/m<sup>3</sup>

##### POTASSIUM CYANIDE

Ceiling exposure limit: ACGIH 5 mg/m<sup>3</sup>

as CN

Sk

ACGIH = American Conference of Governmental Industrial Hygienists.

Sk = Danger of cutaneous absorption.

#### Exposure controls

##### Protective equipment



##### **Appropriate engineering controls**

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

##### **Eye/face protection**

Tight-fitting safety glasses.

##### **Hand protection**

It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.

## SILVER TANK

|                                       |  |
|---------------------------------------|--|
| <b>Other skin and body protection</b> | Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.                          |
| <b>Hygiene measures</b>               | Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.  |
| <b>Respiratory protection</b>         | If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. |

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

|  |  |
|--|--|
| <b>Appearance</b>                      | Liquid.  |
| <b>Color</b>                           | Clear liquid.  |
| <b>pH</b>                              | pH (concentrated solution): 12.0-13.0                      |
| <b>Initial boiling point and range</b> | 100°C/212°F @  |
| <b>Relative density</b>                | 1.02-1.10  |
| <b>Other information</b>               | Not available.   |
| <b>Volatile organic compound</b>       | This product contains a maximum VOC content of EDA 20 g/l. |

### 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | Generates very toxic gas in contact with acid.                      |
| <b>Stability</b>                          | Stable at normal ambient temperatures and when used as recommended. |
| <b>Possibility of hazardous reactions</b> | Strong acids.   |
| <b>Conditions to avoid</b>                | Avoid excessive heat for prolonged periods of time. Avoid freezing. |
| <b>Materials to avoid</b>                 | Avoid contact with acids.   |
| <b>Hazardous decomposition products</b>   | None at ambient temperatures.                                       |

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

|                         |       |
|-------------------------|-------|
| <b>ATE oral (mg/kg)</b> | 48.66 |
|-------------------------|-------|

##### Acute toxicity - dermal

|                           |      |
|---------------------------|------|
| <b>ATE dermal (mg/kg)</b> | 62.5 |
|---------------------------|------|

##### Acute toxicity - inhalation

|                                      |      |
|--------------------------------------|------|
| <b>ATE inhalation (vapours mg/l)</b> | 1.43 |
|--------------------------------------|------|

#### Toxicological information on ingredients.

### SILVER CYANIDE

#### Acute toxicity - oral

## SILVER TANK

Acute toxicity oral (LD<sub>50</sub>  
mg/kg) 123.0

Species Rat

### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub>  
mg/kg) 24.0

Species Rabbit

### Acute toxicity - inhalation

ATE inhalation (vapours  
mg/l) 0.5

## POTASSIUM HYDROXIDE

### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub>  
mg/kg) 333.0

Species Rat

ATE oral (mg/kg) 500.0

## POTASSIUM CYANIDE

### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub>  
mg/kg) 2.86

Species Human

ATE oral (mg/kg) 2.86

### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub>  
mg/kg) 33.3

Species Rabbit

### Acute toxicity - inhalation

ATE inhalation (vapours  
mg/l) 0.05

## 12. Ecological Information

### Ecological information on ingredients.

## SILVER CYANIDE

### Acute aquatic toxicity

LE(C)<sub>50</sub> 0.1 < L(E)C<sub>50</sub> ≤ 1

M factor (Acute) 1

### Chronic aquatic toxicity

NOEC 0.01 < NOEC ≤ 0.1

**SILVER TANK**

|                           |                        |
|---------------------------|------------------------|
| <b>Degradability</b>      | Non-rapidly degradable |
| <b>M factor (Chronic)</b> | 1                      |

**POTASSIUM HYDROXIDE**

|                              |   |
|------------------------------|---|
| <b>Acute toxicity - fish</b> | , 96 hours: 80 mg/l, Fish<br>EC <sub>50</sub> , 40-240 hours: mg/l, Daphnia magna |
|------------------------------|---|

**POTASSIUM CYANIDE****Acute aquatic toxicity**

|                           |                               |
|---------------------------|-------------------------------|
| <b>LE(C)<sub>50</sub></b> | 0.1 < L(E)C <sub>50</sub> ≤ 1 |
| <b>M factor (Acute)</b>   | 1                             |

**Chronic aquatic toxicity**

|                           |                        |
|---------------------------|------------------------|
| <b>NOEC</b>               | 0.01 < NOEC ≤ 0.1      |
| <b>Degradability</b>      | Non-rapidly degradable |
| <b>M factor (Chronic)</b> | 1                      |

**13. Disposal considerations****Waste treatment methods**

|                            |   |
|----------------------------|---|
| <b>General information</b> | Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. |
|----------------------------|---|

**14. Transport information****UN Number**

|                      |      |
|----------------------|------|
| <b>UN No. (TDG)</b>  | 1935 |
| <b>UN No. (IMDG)</b> | 1935 |
| <b>UN No. (ICAO)</b> | 1935 |
| <b>UN No. (DOT)</b>  | 1935 |

**UN proper shipping name**

|                                    |   |
|------------------------------------|---|
| <b>Proper shipping name (TDG)</b>  | CYANIDE SOLUTION, N.O.S. (POTASSIUM CYANIDE,POTASSIUM SILVER CYANIDE) |
| <b>Proper shipping name (IMDG)</b> | CYANIDE SOLUTION, N.O.S. (POTASSIUM CYANIDE,POTASSIUM SILVER CYANIDE) |
| <b>Proper shipping name (ICAO)</b> | CYANIDE SOLUTION, N.O.S. (POTASSIUM CYANIDE,POTASSIUM SILVER CYANIDE) |
| <b>Proper shipping name (DOT)</b>  | CYANIDE SOLUTION, N.O.S. (POTASSIUM CYANIDE,POTASSIUM SILVER CYANIDE) |

**Transport hazard class(es)**

|                            |     |
|----------------------------|-----|
| <b>TDG class</b>           | 6.1 |
| <b>TDG label(s)</b>        | 6.1 |
| <b>IMDG Class</b>          | 6.1 |
| <b>ICAO class/division</b> | 6.1 |

## SILVER TANK

### Transport labels



### Packing group

|                    |    |
|--------------------|----|
| TDG Packing Group  | II |
| IMDG packing group | II |
| ICAO packing group | II |
| DOT packing group  | II |

### Environmental hazards

#### Environmentally Hazardous Substance



### Special precautions for user

EmS F-A, S-A

## 15. Regulatory information

### US Federal Regulations

#### SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Potassium Cyanide  
100 lbs  
Potassium Silver Cyanide  
500 lbs

#### CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Potassium Cyanide  
Final CERCLA RQ: 10 lbs  
Potassium Silver Cyanide  
Final CERCLA RQ: 1 lbs

#### SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Potassium Cyanide  
EPCRA RQ: 10 lbs  
Potassium Silver Cyanide  
EPCRA RQ: 1 lbs

#### SARA 313 Emission Reporting

Potassium Cyanide  
Potassium Silver Cyanide

#### CAA Accidental Release Prevention

HAP  
Potassium Cyanide  
Potassium Silver Cyanide

#### SARA (311/312) Hazard Categories

Acute  
Chronic  
Reactivity

#### OSHA Highly Hazardous Chemicals

Exempt.



## SILVER TANK

### US State Regulations

#### California Proposition 65 Carcinogens and Reproductive Toxins

Exempt.

#### California Directors List of Hazardous Substances

Potassium Cyanide  
Potassium Silver Cyanide

### Inventories

#### US - TSCA

All ingredients are present.

### 16. Other information

|                            |   |
|----------------------------|---|
| Revision date              | 5/18/2018   |
| Revision                   | 3   |
| Hazard statements in full  | H300 Fatal if swallowed.<br>H302 Harmful if swallowed.<br>H310 Fatal in contact with skin.<br>H314 Causes severe skin burns and eye damage.<br>H315 Causes skin irritation.<br>H318 Causes serious eye damage.<br>H330 Fatal if inhaled.<br>H400 Very toxic to aquatic life.<br>H410 Very toxic to aquatic life with long lasting effects.<br>H411 Toxic to aquatic life with long lasting effects. |
| NFPA - instability hazard  | Unstable if heated. (1)   |
| NFPA - health hazard       | Extremely hazardous, serious injury. (3)  |
| NFPA - flammability hazard | Will not burn. (0)  |

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisfy itself as to the suitability of the product.