

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : 40-3901CSI

#### 1.2. Other means of identification

No additional information available

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

Restrictions on use : Not to be used for any purpose other than the one the product was designed for

#### 1.4. Supplier's details

Epoxies, Etc.  
21 Starline Way  
Cranston, RI 02921  
USA  
T 401-946-5564  
[www.epoxies.com](http://www.epoxies.com)

#### 1.5. Emergency phone number

Emergency number : 当地的: 86-21-6631 2554 VelocityEHS: +1 (800) 255-3924, +1 (813) 248-0585

### SECTION 2 Hazard Identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

|                                                                   |      |                                                       |
|-------------------------------------------------------------------|------|-------------------------------------------------------|
| Skin corrosion/irritation, Category 2                             | H315 | Causes skin irritation.                               |
| Serious eye damage/eye irritation, Category 1                     | H318 | Causes serious eye damage.                            |
| Skin sensitization, Category 1                                    | H317 | May cause an allergic skin reaction.                  |
| Hazardous to the aquatic environment — Acute Hazard, Category 1   | H400 | Very toxic to aquatic life.                           |
| Hazardous to the aquatic environment — Chronic Hazard, Category 1 | H410 | Very toxic to aquatic life with long lasting effects. |

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P272 - Contaminated work clothing must not be allowed out of the workplace.  
P273 - Avoid release to the environment.

Precautionary statements (GHS US)

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

P280 - Wear protective gloves.  
P302+P352 - If on skin: Wash with plenty of water.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a poison center or doctor.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P391 - Collect spillage.  
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name           | Product identifier    | %        | GHS US classification                                                                               |
|----------------|-----------------------|----------|-----------------------------------------------------------------------------------------------------|
| Silver         | CAS-No.: 7440-22-4    | 45 - 70* | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410                                                    |
| Polyaminoamide | CAS-No.: 68410-23-1   | 30 - 60* | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319                                                           |
| Curing agent*  | CAS-No.: Trade Secret | < 5      | Acute Tox. 4 (Dermal), H312<br>Skin Corr. 1B, H314<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412 |

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general

: If you feel unwell, seek medical advice.

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. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion

: Call a poison center/doctor/physician if you feel unwell.

Personal protection for first-aid responders.

: First aid workers will be equipped with suitable personal protective equipment.

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

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

|                                     |                                                                                                                                         |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms/effects after inhalation   | : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. |
| Symptoms/effects after skin contact | : Irritation. May cause an allergic skin reaction.                                                                                      |
| Symptoms/effects after eye contact  | : Serious damage to eyes.                                                                                                               |
| Symptoms/effects after ingestion    | : None under normal conditions.                                                                                                         |

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

|                                   |                          |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| Suitable extinguishing media   | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream.               |

### 5.2. Specific hazards arising from the chemical

|                                                  |                                |
|--------------------------------------------------|--------------------------------|
| Fire hazard                                      | : No fire hazard.              |
| Explosion hazard                                 | : No direct explosion hazard.  |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

### 5.3. Special protective equipment and precautions for fire-fighters

|                                |                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Firefighting instructions      | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.              |

## SECTION 6 Accidental release measures

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

|                  |                                                                                                                                         |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|

#### For non-emergency personnel

|                      |                                                                                                               |
|----------------------|---------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Wear recommended personal protective equipment.                                                             |
| Emergency procedures | : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. |

#### 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". |
| Emergency procedures      | : Evacuate unnecessary personnel. Stop leak if safe to do so.                                                                                               |
| Environmental precautions | : Avoid release to the environment.                                                                                                                         |

### 6.2. Methods and materials for containment and cleaning up

|                         |                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For containment         | : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material.                                                                                                             |
| Other information       | : Dispose of materials or solid residues at an authorized site.                                                                                             |

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

For further information refer to section 13

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

|                                   |                                                                                                                                                                                                                     |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling     | : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray.                                               |
| Hygiene measures                  | : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use.                                                                                                                          |

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

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| Technical measures  | : Keep in a cool, well-ventilated place away from heat.                     |
| Storage conditions  | : Keep cool. Protect from sunlight.                                         |
| Packaging materials | : Always store product in container of same material as original container. |

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

#### Silver (7440-22-4)

##### USA - ACGIH - Occupational Exposure Limits

|                      |                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------|
| Local name           | Silver                                                                                            |
| ACGIH® TLV® TWA      | 0.1 mg/m <sup>3</sup> (Metal, dust and fume)<br>0.01 mg/m <sup>3</sup> (Soluble compounds, as Ag) |
| Remark (ACGIH®)      | TLV® Basis: Argyria                                                                               |
| Regulatory reference | ACGIH 2025                                                                                        |

##### USA - OSHA - Occupational Exposure Limits

|                                |                                             |
|--------------------------------|---------------------------------------------|
| Local name                     | Silver, metal and soluble compounds (as Ag) |
| OSHA PEL TWA                   | 0.01 mg/m <sup>3</sup>                      |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1                    |

##### USA - Cal/OSHA - Occupational Exposure Limits

|                        |                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Local name             | Silver metal, as Ag                                                                                                                  |
| Cal/OSHA PEL (OEL TWA) | 0.01 mg/m <sup>3</sup>                                                                                                               |
| Regulatory reference   | California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1) |

##### USA - NIOSH - Occupational Exposure Limits

|                                 |                                                                         |
|---------------------------------|-------------------------------------------------------------------------|
| Local name                      | Silver, metal and soluble compounds (as Ag)                             |
| NIOSH REL 10h TWA               | 0.01 mg/m <sup>3</sup>                                                  |
| Regulatory reference (US-NIOSH) | OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG)) |

### 8.2. Appropriate engineering controls

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

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

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

#### Personal protective equipment:

Wear recommended personal protective equipment.

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### Personal protective equipment symbol(s):



## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

|                                                 |                                                                                                                                                                                                                                          |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical state                                  | : Liquid                                                                                                                                                                                                                                 |
| Color                                           | : Mixture contains one or more component(s) which have the following color(s):<br>Colourless to yellow Light yellow light yellow Metallic grey On exposure to air: turns grey-black                                                      |
| Odor                                            | : There may be no odor warning properties, odor is subjective and inadequate to warn of overexposure.<br>Mixture contains one or more component(s) which have the following odor:<br>Ammonia odour Amine-like odour Amine-like Odourless |
| Odor threshold                                  | : No data available                                                                                                                                                                                                                      |
| pH                                              | : No data available                                                                                                                                                                                                                      |
| Melting point                                   | : Not applicable                                                                                                                                                                                                                         |
| Freezing point                                  | : No data available                                                                                                                                                                                                                      |
| Boiling point                                   | : No data available                                                                                                                                                                                                                      |
| Flash point                                     | : No data available                                                                                                                                                                                                                      |
| Flammability (solid, gas)                       | : Not applicable.                                                                                                                                                                                                                        |
| Vapor pressure                                  | : No data available                                                                                                                                                                                                                      |
| Relative vapor density at 20°C                  | : No data available                                                                                                                                                                                                                      |
| Relative density                                | : No data available                                                                                                                                                                                                                      |
| Solubility                                      | : No data available                                                                                                                                                                                                                      |
| Partition coefficient n-octanol/water (Log Pow) | : No data available                                                                                                                                                                                                                      |
| Auto-ignition temperature                       | : No data available                                                                                                                                                                                                                      |
| Decomposition temperature                       | : No data available                                                                                                                                                                                                                      |
| Viscosity, kinematic                            | : No data available                                                                                                                                                                                                                      |
| Explosion limits                                | : No data available                                                                                                                                                                                                                      |
| Particle characteristics                        | : No data available                                                                                                                                                                                                                      |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

### 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 |

#### Curing agent

|                    |                                                                        |
|--------------------|------------------------------------------------------------------------|
| LD50 oral rat      | 1716 mg/kg body weight (BASF test, Rat, Experimental value, Oral)      |
| LD50 oral          | 2500 mg/kg                                                             |
| LD50 dermal rabbit | 1465 mg/kg body weight (BASF test, Rabbit, Experimental value, Dermal) |
| LD50 dermal        | 550 mg/kg                                                              |

#### Polyaminoamide (68410-23-1)

|                 |                                                                                                                                                                                                                          |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LD50 oral rat   | > 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method) |
| LD50 dermal rat | > 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))                                                                          |

#### Silver (7440-22-4)

|                       |                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------|
| LD50 oral rat         | > 2000 mg/kg Source: ECHA                                                                                        |
| LD50 oral             | 5000 mg/kg                                                                                                       |
| LD50 dermal rat       | > 2000 mg/kg Source: ECHA                                                                                        |
| LD50 dermal           | 2500 mg/kg                                                                                                       |
| LC50 Inhalation - Rat | > 5.16 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method) |

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

| <b>Silver (7440-22-4)</b>          |                                                                                                                                                                         |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ATE US (oral)                      | 5000 mg/kg body weight                                                                                                                                                  |
| ATE US (dermal)                    | 2500 mg/kg body weight                                                                                                                                                  |
| Skin corrosion/irritation          | : Causes skin irritation.                                                                                                                                               |
| <b>Curing agent</b>                |                                                                                                                                                                         |
| pH                                 | 10 (1 %, 20 °C)                                                                                                                                                         |
| <b>Polyaminoamide (68410-23-1)</b> |                                                                                                                                                                         |
| pH                                 | 11.08 Temp.: 25 °C Concentration: 1 vol%                                                                                                                                |
| <b>Silver (7440-22-4)</b>          |                                                                                                                                                                         |
| pH                                 | No data available in the literature                                                                                                                                     |
| Serious eye damage/irritation      | : Causes serious eye damage.                                                                                                                                            |
| <b>Curing agent</b>                |                                                                                                                                                                         |
| pH                                 | 10 (1 %, 20 °C)                                                                                                                                                         |
| <b>Polyaminoamide (68410-23-1)</b> |                                                                                                                                                                         |
| pH                                 | 11.08 Temp.: 25 °C Concentration: 1 vol%                                                                                                                                |
| <b>Silver (7440-22-4)</b>          |                                                                                                                                                                         |
| pH                                 | No data available in the literature                                                                                                                                     |
| Respiratory or skin sensitization  | : May cause an allergic skin reaction.                                                                                                                                  |
| Germ cell mutagenicity             | : Not classified                                                                                                                                                        |
| Carcinogenicity                    | : Not classified                                                                                                                                                        |
| Reproductive toxicity              | : Not classified                                                                                                                                                        |
| <b>Silver (7440-22-4)</b>          |                                                                                                                                                                         |
| LOAEL (animal/female, F0/P)        | 40 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:                                                                                                 |
| NOAEL (animal/female, F0/P)        | 4 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:                                                                                                  |
| STOT-single exposure               | : Not classified                                                                                                                                                        |
| STOT-repeated exposure             | : Not classified                                                                                                                                                        |
| <b>Polyaminoamide (68410-23-1)</b> |                                                                                                                                                                         |
| NOAEL (oral, rat, 90 days)         | 1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| <b>Silver (7440-22-4)</b>          |                                                                                                                                                                         |
| LOAEL (oral, rat, 90 days)         | 125 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)                                                  |
| Aspiration hazard                  | : Not classified                                                                                                                                                        |
| <b>Curing agent</b>                |                                                                                                                                                                         |
| Viscosity, kinematic               | No data available in the literature                                                                                                                                     |
| <b>Silver (7440-22-4)</b>          |                                                                                                                                                                         |
| Viscosity, kinematic               | Not applicable (solid)                                                                                                                                                  |

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

|                                     |                                                                                                                                         |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms/effects after inhalation   | : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. |
| Symptoms/effects after skin contact | : Irritation. May cause an allergic skin reaction.                                                                                      |
| Symptoms/effects after eye contact  | : Serious damage to eyes.                                                                                                               |
| Symptoms/effects after ingestion    | : None under normal conditions.                                                                                                         |

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

|                                                           |                                                         |
|-----------------------------------------------------------|---------------------------------------------------------|
| Ecology - general                                         | : Very toxic to aquatic life with long lasting effects. |
| Hazardous to the aquatic environment, short-term (acute)  | : Very toxic to aquatic life.                           |
| Hazardous to the aquatic environment, long-term (chronic) | : Very toxic to aquatic life with long lasting effects. |

### Curing agent

|                      |                                                                                      |
|----------------------|--------------------------------------------------------------------------------------|
| LC50 - Fish [1]      | 495 mg/l (96 h, Pimephales promelas, Fresh water, Literature study)                  |
| EC50 - Crustacea [1] | 31.1 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Literature study) |
| ErC50 algae          | 27 mg/l                                                                              |
| NOEC chronic algae   | 0.468 mg/l                                                                           |

### Polyaminoamide (68410-23-1)

|                      |                                                                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| LC50 - Fish [1]      | 7.07 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)                                                        |
| EC50 - Crustacea [1] | 5.18 mg/l Test organisms (species): Daphnia magna                                                                                         |
| EC50 72h - Algae [1] | 4.11 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |

### Silver (7440-22-4)

|                 |                                                                                                                                                        |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| LC50 - Fish [1] | 4.7 µg/l Test organisms (species): Pimephales promelas                                                                                                 |
| LC50 - Fish [2] | 89.4 µg/l Test organisms (species): Pimephales promelas                                                                                                |
| ErC50 algae     | 0.285 µg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Silver ion) |

### 12.2. Persistence and degradability

|                                    |                                     |
|------------------------------------|-------------------------------------|
| <b>40-3901CSI</b>                  |                                     |
| Persistence and degradability      | Not rapidly degradable              |
| <b>Curing agent</b>                |                                     |
| Persistence and degradability      | Not readily biodegradable in water. |
| <b>Polyaminoamide (68410-23-1)</b> |                                     |
| Persistence and degradability      | Not rapidly degradable              |
| <b>Silver (7440-22-4)</b>          |                                     |
| Persistence and degradability      | Biodegradability: not applicable.   |
| Chemical oxygen demand (COD)       | Not applicable (inorganic)          |
| ThOD                               | Not applicable (inorganic)          |

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

### 12.3. Bioaccumulative potential

#### Curing agent

|                                                 |                                 |
|-------------------------------------------------|---------------------------------|
| Partition coefficient n-octanol/water (Log Pow) | -2.65 (Estimated value, KOWWIN) |
| Bioaccumulative potential                       | Not bioaccumulative.            |

#### Silver (7440-22-4)

|                           |                                                                                |
|---------------------------|--------------------------------------------------------------------------------|
| BCF - Fish [1]            | 70 (30 day(s), Cyprinus carpio, Fresh water, Experimental value, Fresh weight) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500).                                 |

### 12.4. Mobility in soil

#### Curing agent

|                                                            |                                                      |
|------------------------------------------------------------|------------------------------------------------------|
| Surface tension                                            | No data available in the literature                  |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.885 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil                                             | Highly mobile in soil.                               |

#### Silver (7440-22-4)

|                 |                                                       |
|-----------------|-------------------------------------------------------|
| Surface tension | No data available in the literature                   |
| Ecology - soil  | No (test)data on mobility of the substance available. |

### 12.5. Other adverse effects

Ozone : Not classified  
Fluorinated greenhouse gases : No

## SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Sewage disposal recommendations : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.  
Additional information : Do not re-use empty containers.

## SECTION 14 Transport information

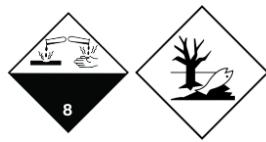
In accordance with DOT / TDG / IMDG / IATA

| DOT                                                                                 | TDG                                                          | IMDG                                                         | IATA                                                      |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|
| <b>14.1. UN number</b>                                                              |                                                              |                                                              |                                                           |
| UN2735                                                                              | UN2735                                                       | 2735                                                         | 2735                                                      |
| <b>14.2. Proper Shipping Name</b>                                                   |                                                              |                                                              |                                                           |
| Polyamines, liquid, corrosive, n.o.s.<br>(Triethylenetetramine ;<br>Polyaminoamide) | POLYAMINES, LIQUID,<br>CORROSIVE, N.O.S.<br>(Polyaminoamide) | POLYAMINES, LIQUID,<br>CORROSIVE, N.O.S.<br>(Polyaminoamide) | Polyamines, liquid, corrosive, n.o.s.<br>(Polyaminoamide) |
| <b>14.3. Transport hazard class(es)</b>                                             |                                                              |                                                              |                                                           |
| 8                                                                                   | 8                                                            | 8                                                            | 8                                                         |

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

| DOT                                                                               | TDG                                                                               | IMDG                                                                               | IATA                                                                                |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |
| <b>14.4. Packing group</b>                                                        |                                                                                   |                                                                                    |                                                                                     |
| III                                                                               | III                                                                               | III                                                                                | III                                                                                 |
| <b>14.5. Environmental hazards</b>                                                |                                                                                   |                                                                                    |                                                                                     |
| Dangerous for the environment: Yes                                                | Dangerous for the environment: Yes                                                | Dangerous for the environment: Yes<br>Marine pollutant: Yes                        | Dangerous for the environment: Yes                                                  |
| No supplementary information available                                            |                                                                                   |                                                                                    |                                                                                     |

## 14.6. Transport in bulk

Not applicable

## 14.7. Special precautions for user

### DOT

UN-No. (DOT)

DOT Special Provisions (49 CFR 172.102)

: UN2735

: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31H2Z1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

: 154

DOT Packaging Exceptions (49 CFR 173.xxx)

: 203

DOT Packaging Non Bulk (49 CFR 173.xxx)

: 241

DOT Packaging Bulk (49 CFR 173.xxx)

: 5 L

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)

: 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

: 60 L

DOT Vessel Stowage Location

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

DOT Vessel Stowage Other

: 52 - Stow "separated from" acids

### TDG

UN-No. (TDG)

: UN2735

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TDG Special Provisions                                                      | : 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the danger or dangers posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3).<br>(2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name:<br>(a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S;<br>(b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S;<br>(c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S;<br>(d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or<br>(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.<br>(3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment:<br>(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or<br>(b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS. |
| Explosive Limit and Limited Quantity Index                                  | : 5 L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Excepted quantities (TDG)                                                   | : E1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index | : 5 L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Emergency Response Guide (ERG) Number                                       | : 153                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>IMDG</b>                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Special provision (IMDG)                                                    | : 223, 274                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Limited quantities (IMDG)                                                   | : 5 L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Excepted quantities (IMDG)                                                  | : E1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Packing instructions (IMDG)                                                 | : P001, LP01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| IBC packing instructions (IMDG)                                             | : IBC03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Tank instructions (IMDG)                                                    | : T7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Tank special provisions (IMDG)                                              | : TP1, TP28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| EmS-No. (Fire)                                                              | : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| EmS-No. (Spillage)                                                          | : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Stowage category (IMDG)                                                     | : A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Segregation (IMDG)                                                          | : SGG18, SG35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Properties and observations (IMDG)                                          | : Colorless to yellowish liquids or solutions with a pungent odor. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. Reacts violently with acids. Cause burns to skin, eyes and mucous membranes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>IATA</b>                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Special provision (IATA)                                                    | : A3, A803                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| PCA Excepted quantities (IATA)                                              | : E1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| PCA Limited quantities (IATA)                                               | : Y841                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| PCA limited quantity max net quantity (IATA)                                | : 1L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| PCA packing instructions (IATA)                                             | : 852                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| PCA max net quantity (IATA)                                                 | : 5L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| CAO packing instructions (IATA)                                             | : 856                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CAO max net quantity (IATA)                                                 | : 60L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ERG code (IATA)                                                             | : 8L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

### SECTION 15 Regulatory information

#### 15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

|        |                   |           |
|--------|-------------------|-----------|
| Silver | CAS-No. 7440-22-4 | 45 - 70*% |
|--------|-------------------|-----------|

#### Silver (7440-22-4)

|           |         |
|-----------|---------|
| CERCLA RQ | 1000 lb |
|-----------|---------|

#### 15.2. International regulations

##### CANADA

#### Curing agent

Listed on the Canadian DSL (Domestic Substances List)

#### Polyaminoamide (68410-23-1)

Listed on the Canadian DSL (Domestic Substances List)

#### Silver (7440-22-4)

Listed on the Canadian DSL (Domestic Substances List)

##### EU-Regulations

No additional information available

##### National regulations

#### Curing agent

Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### Polyaminoamide (68410-23-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### Silver (7440-22-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### 15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

| Component      | State or local regulations                                                                                                                            |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curing agent() | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

# 40-3901CSI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

| Component         | State or local regulations                                                                                                                            |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Silver(7440-22-4) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Revision date : 12/29/2025

Issue date : 10/21/2024

| Full text of hazard classes and H-statements |                                                      |
|----------------------------------------------|------------------------------------------------------|
| H312                                         | Harmful in contact with skin                         |
| H314                                         | Causes severe skin burns and eye damage              |
| H315                                         | Causes skin irritation                               |
| H317                                         | May cause an allergic skin reaction                  |
| H318                                         | Causes serious eye damage                            |
| H319                                         | Causes serious eye irritation                        |
| H400                                         | Very toxic to aquatic life                           |
| H410                                         | Very toxic to aquatic life with long lasting effects |
| H412                                         | Harmful to aquatic life with long lasting effects    |

Safety Data Sheet (SDS), USA

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.