

# ZONE

IMAGING

**Zone Imaging Ltd.**

**Safety Data Sheet**

**Eco Zonefix Fixer Part A**

According to Regulation (EC) No 1907/2006, Annex II, as amended.

|                                                                                             |
|---------------------------------------------------------------------------------------------|
| <b>SECTION 1: Identification of of the substance/mixture and of the company/undertaking</b> |
|---------------------------------------------------------------------------------------------|

**1.1. Product identifier**

|                       |               |
|-----------------------|---------------|
| <b>Product name</b>   | Eco Zonefix   |
| <b>Product number</b> | 5060594641107 |
| <b>Container size</b> | 65g           |

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

|                        |                    |
|------------------------|--------------------|
| <b>Identified uses</b> | Photographic Fixer |
| <b>Other uses</b>      | None               |

**1.3. Details of the supplier of the safety data sheet**

|                              |                                                                             |
|------------------------------|-----------------------------------------------------------------------------|
| <b>Manufacturer/Supplier</b> | Zone Imaging Ltd., Unit 6, 58b Alexandra Road, Enfield, London, EN3 7EH, UK |
|------------------------------|-----------------------------------------------------------------------------|

[www.zoneimaging-photochemicals.co.uk](http://www.zoneimaging-photochemicals.co.uk)

|                       |            |
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| <b>Contact person</b> | James Lane |
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Product definition:** Mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Oral acute toxicity 4: H302

Eye Damage 2: H319

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the hazard statements declared above.

### 2.2. Label elements

**Pictograms**



**Signal word**

Warning

**Hazard statements**

**H302** – Harmful if swallowed. Acute tox. 4

**H319** – Causes serious eye irritation. Eye dam. 2

**Precautionary statements**

**Prevention**

**P264** – Wash hands and equipment thoroughly after handling.

**P270** – Do not eat/drink/smoke when using this product.

**P280** – Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

**P301 + P312** – IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

**P305 + P351 + P338** – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, continue rinsing.

**P337 + P313** – If eye irritation persists: Get medical advice/attention.

### 2.3. Other Hazards

**Other hazards which do not result in classification**

None.

### SECTION 3: Composition/information on ingredients

#### 3.1. Mixture of the substances listed below with harmless additions

| Substance name    | Identifiers                                                 | % w/w  | Hazards                                    |
|-------------------|-------------------------------------------------------------|--------|--------------------------------------------|
| Ammonium chloride | CAS# 12125-02-9<br>EC# 235-186-4<br>REACH# 01-2119487950-27 | 50-75% | H302 Acute toxicity 4<br>H319 Eye damage 2 |

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

|                     |                                                                                                                                                                   |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b>      | If symptoms persist, call a physician.                                                                                                                            |
| <b>Inhalation</b>   | Fresh air. Get medical attention if symptoms occur.                                                                                                               |
| <b>Skin contact</b> | Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| <b>Eye contact</b>  | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.                                                   |
| <b>Ingestion</b>    | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.                                                             |

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

No data available.

#### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes for physician**                      Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

|                                       |                                                                                                                                 |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Carbon dioxide, dry chemical, alcohol-resistant foam, or water jet.<br><br>Use firefighting measures that suit the environment. |
| <b>Unsuitable extinguishing media</b> | No data available.                                                                                                              |

## 5.2. Special hazards arising from the substance or mixture

|                                      |                                                                                                        |
|--------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Specific risks</b>                | None, this product is non-flammable nor explosive.                                                     |
| <b>Hazardous combustion products</b> | Thermal decomposition or combustion products may include sulphur, sodium, carbon, and ammonium oxides. |

## 5.3. Advice for firefighters

|                                               |                                                                                                                              |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Protective actions during firefighting</b> | Avoid breathing fire gases or vapours.                                                                                       |
| <b>Special protective equipment</b>           | In the event of fire, wear self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and full protective gear. |

# SECTION 6: Accidental release measures

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

|                             |                                                                                                                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b> | Advice for non-emergency personnel: Avoid inhalation of dusts. Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. For personal protection see section 8. |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 6.2. Environmental precautions

|                                  |                                                                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental precautions</b> | Do not allow to enter drainage system, surface, or ground water. Should not be released into the environment. Collect and dispose of spillage as indicated in Section 13. |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                                |                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Methods for cleaning up</b> | Cover drains. Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Avoid generation of dusts. |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

# SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

|                          |                                                                                                                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usage precautions</b> | Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. For full precautions, see section 2.2. |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

**Storage precautions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert atmosphere. Protect from moisture.

**Storage class** Chemical storage.

**Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)** Class 13

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters: Occupational exposure limits

| Component         | UK                                                                        | EU                 |
|-------------------|---------------------------------------------------------------------------|--------------------|
| Ammonium chloride | STEL: 20 mg/m <sup>3</sup><br>15 min<br>TWA: 10 mg/m <sup>3</sup><br>8 hr | No data available. |

### 8.2. Exposure controls

**Appropriate engineering controls** Change contaminated clothing. Wash hands after working with substance. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

**Eye/face protection** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Safety glasses.

**Skin protection** Gloves - material: Natural rubber  
Nitrile rubber  
Neoprene  
PVC

Long sleeved clothing

**Respiratory protection** When workers are facing concentrations above the exposure limit or if irritation or other symptoms are experienced, they must use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly.

## SECTION 9: Physical and Chemical Properties

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

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Appearance</b>           | White powder                  |
| <b>Odour</b>                | None                          |
| <b>pH @20°C with Part B</b> | 7.38                          |
| <b>Melting point</b>        | No data available.            |
| <b>Boiling point</b>        | >250°C                        |
| <b>Flash point</b>          | Not applicable                |
| <b>Self-inflammability</b>  | Product is not self-igniting. |
| <b>Danger of explosion</b>  | Product is not explosive.     |
| <b>Relative density</b>     | No data available             |
| <b>Water solubility</b>     | Miscible                      |
| <b>Additional property</b>  | Hygroscopic.                  |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

|                   |                                                                |
|-------------------|----------------------------------------------------------------|
| <b>Reactivity</b> | See the other subsections of this section for further details. |
|-------------------|----------------------------------------------------------------|

### 10.2. Chemical stability

|                  |                                                              |
|------------------|--------------------------------------------------------------|
| <b>Stability</b> | Stable under the prescribed storage conditions. Hydroscopic. |
|------------------|--------------------------------------------------------------|

### 10.3. Possibility of hazardous reactions

|                                           |                                                                                                                                 |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Possibility of hazardous reactions</b> | Under normal conditions of storage and use, no hazardous reactions will occur.<br><br>Contact with acids liberates toxic gases. |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

### 10.4. Conditions to avoid

|                            |                                                                                                                           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Conditions to avoid</b> | Avoid excessive heat for prolonged periods of time. Avoid contact with acids, bases, strong oxidising or reducing agents. |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------|

### 10.5. Incompatible materials

**Materials to avoid** Strong acids, bases, oxidising and reducing agents. Avoid contact with other photographic solutions.

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition or combustion products may include the following substances: oxides of sulphur, carbon, ammonium and sodium.

### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

**Toxicological effects** This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components that comprise the mixture.

**Germ cell mutagenicity** The product contains no substances suspected of causing genetic defects.

**Carcinogenicity** The product contains no carcinogenic substances.

**Reproductive toxicity** No data available.

**Specific target organ toxicity** STOT - single exposure: No data available.  
STOT – repeated exposure: No data available.

**Acute and chronic health hazards** No data available

| <b>Acute toxicity</b>                                       |      |                    |
|-------------------------------------------------------------|------|--------------------|
| <b>LD/LC50 values that are relevant for classification:</b> |      |                    |
| <b>Ammonium chloride</b>                                    |      |                    |
| Oral                                                        | LD50 | 1650 mg/kg (rat)   |
| Inhalation                                                  | LC50 | No data available. |
| Dermal                                                      | LD50 | >2,000 mg/kg (rat) |

**Skin corrosion/irritation** Based on available data; the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data; the classification criteria are not met.

**Respiratory or skin sensitization** Based on available data; the classification criteria are not met.

#### 11.2. Other information

When used and handled according to specifications, the product does not have any harmful effect according to our experience and the information provided to us.

## SECTION 12: Ecological Information

### 12.1. Toxicity

|                                               |                                                                   |
|-----------------------------------------------|-------------------------------------------------------------------|
| <b>Acute toxicity – fish</b>                  | LC50, 96 hours: 209 mg/l, Cyprinus carpio (freshwater fish)       |
| <b>Acute toxicity – aquatic invertebrates</b> | EC50, 48 hours: 101 mg/l, Daphnia magna (Water flea)              |
| <b>Acute toxicity – algae</b>                 | ErC50, 5 days: 1,300 mg/l, Chlorella vulgaris (Fresh water algae) |
| <b>Acute toxicity – bacteria</b>              | EC50, 30 minutes: 1,310 mg/l, activated sludge                    |

### 12.2. Persistence and degradability

|                                      |                                                                                          |
|--------------------------------------|------------------------------------------------------------------------------------------|
| <b>Persistence and degradability</b> | The methods for determining biodegradability are not applicable to inorganic substances. |
|--------------------------------------|------------------------------------------------------------------------------------------|

### 12.3. Bioaccumulation

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| <b>Bioaccumulation</b> | No data available. Unlikely as product is soluble in water. |
|------------------------|-------------------------------------------------------------|

### 12.4. Mobility in soil

|                         |                              |
|-------------------------|------------------------------|
| <b>Mobility in soil</b> | Product is soluble in water. |
|-------------------------|------------------------------|

### 12.5. Results of PBT and vPvB assessment

|                                           |                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------|
| <b>Results of PBT and vPvB assessment</b> | This product does not contain any substances classified as PBT or vPvB. |
|-------------------------------------------|-------------------------------------------------------------------------|

### 12.6. Other adverse effects

|                                          |       |
|------------------------------------------|-------|
| <b>Additional ecological information</b> | None. |
|------------------------------------------|-------|

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                                           |                                                                                                                                                                          |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal of residue/unused product</b> | Waste is classified as hazardous. Dispose of in accordance with the local and national regulations on waste and hazardous waste.                                         |
| <b>Disposal of packaging</b>              | Dispose of this container to hazardous or special waste collection point. Non contaminated packaging can be used for recycling. Empty contaminated packaging thoroughly. |

They can be recycled after thorough and proper cleaning with water.

**Waste class**

09 01 04 (fixer solutions)

## SECTION 14: Transport information

Not regulated for all modes of transportation.

|                                                                                |                                                      |
|--------------------------------------------------------------------------------|------------------------------------------------------|
| <b>UN Number (ADR/RID, IMDG, IATA)</b>                                         | N/A                                                  |
| <b>UN Proper Shipping Name (ADR/RID, IMDG, IATA)</b>                           | Not applicable                                       |
| <b>Transport Hazard Class(es) ADR/RID, IMDG, IATA</b>                          | None                                                 |
| <b>Packing group (ADR/RID, IMDG, IATA)</b>                                     | Not applicable                                       |
| <b>Environmental hazards</b>                                                   | None                                                 |
| <b>Special precautions for user</b>                                            | None                                                 |
| <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable                                       |
| <b>Transport/Additional Information</b>                                        | Not dangerous according to the above specifications. |

## SECTION 15: Regulatory information

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

#### EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

#### Guidance

Worksafe Australia NOHSC 2012: Labelling of workplace substances.

Australian Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Australian Approved Criteria for Classifying Hazardous Substances (NOHSC 1008). Australian List of Designated Hazardous Substances (NOHSC 10005).

Australian National Code of Practice for the Preparation of Material safety Data Sheets (NOHSC 2011)

## US State Regulations

### State Regulations Comments

No information available.

### Inventories

US – TSCA

Ammonium chloride

## 15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

## SECTION 16: Other information

### General information

Zone Imaging Ltd believe the information and recommendations contained herein are based on correct and factual data. However, no express or implied guarantee or warranty of any kind is made with respect to this information. Use this information only to supplement other information you have gathered and then make an independent determination about the completeness and suitability of all information to ensure the proper use and disposal of this product and the health and safety of employees and customers.

### Issued by

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Publication date: 17/02/2023

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road (Accord Européen sur le Transport des Marchandises Dangereuses par Route)

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EC: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration at which 50% of the animals will be expected to die.

LD50: Lethal dose at which 50% of the animals will be expected to die.

EC50: Effective concentration of test substance which results in a 50 percent reduction in either algae growth (EbC50) or algae growth rate (ErC50) or Daphnia immobilization.

**Hazard statements in full**

**H302** – Harmful if swallowed. Acute tox. 4

**H319** – Causes serious eye irritation. Eye dam. 2

# ZONE

IMAGING

**Zone Imaging Ltd.**

**Safety Data Sheet**

**Eco Zonefix Fixer Part B**

According to Regulation (EC) No 1907/2006, Annex II, as amended.

|                                                                                             |
|---------------------------------------------------------------------------------------------|
| <b>SECTION 1: Identification of of the substance/mixture and of the company/undertaking</b> |
|---------------------------------------------------------------------------------------------|

**1.1. Product identifier**

|                       |               |
|-----------------------|---------------|
| <b>Product name</b>   | Eco Zonefix   |
| <b>Product number</b> | 5060594641107 |
| <b>Container size</b> | 200g          |

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

|                        |                    |
|------------------------|--------------------|
| <b>Identified uses</b> | Photographic Fixer |
| <b>Other uses</b>      | None               |

**1.3. Details of the supplier of the safety data sheet**

|                              |                                                                             |
|------------------------------|-----------------------------------------------------------------------------|
| <b>Manufacturer/Supplier</b> | Zone Imaging Ltd., Unit 6, 58b Alexandra Road, Enfield, London, EN3 7EH, UK |
|------------------------------|-----------------------------------------------------------------------------|

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|--------------|--------------------------------------------------------------------------------------|

|                      |                 |
|----------------------|-----------------|
| <b>Emergency tel</b> | +4477 6099 6515 |
|----------------------|-----------------|

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Product definition:** Substance

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Not classified for physical or health hazards.

### 2.2. Label elements

**Pictograms** None

**Signal word** None

**Hazard statements** None

**Precautionary statements** See "Prevention" directly below

**Prevention**

**P261:** Avoid breathing dust/fume/gas/mist/vapours/spray.

**P264:** Wash hands and equipment thoroughly after handling.

**P270:** Do not eat/drink/smoke when using this product.

**P280:** Wear protective gloves/protective clothing/eye protection/face protection.

### 2.3. Other Hazards

**Other hazards which do not result in classification** None

## SECTION 3: Composition/information on ingredients

### 3.1. Mixture of the substances listed below with harmless additions

| Substance name      | Identifiers                                                | % w/w | Hazards        |
|---------------------|------------------------------------------------------------|-------|----------------|
| Sodium thiosulphate | CAS# 7772-98-7<br>EC# 231-867-5<br>REACH# 01-2119531537-38 | 100   | Not classified |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                     |                                                                                  |
|---------------------|----------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Fresh air.                                                                       |
| <b>Skin contact</b> | Take off immediately all contaminated clothing. Rinse skin with water/ shower.   |
| <b>Eye contact</b>  | Rinse out with plenty of water. Remove contact lenses.                           |
| <b>Ingestion</b>    | Make victim drink water (two glasses at most). Consult doctor if feeling unwell. |

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in Section 11.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

No data available.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

|                                       |                                                                                                                                                                             |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.<br><br>Use firefighting measures that suit the environment. |
| <b>Unsuitable extinguishing media</b> | For this substance, no limitations of extinguishing agents are given.                                                                                                       |

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

|                                      |                                                                                     |
|--------------------------------------|-------------------------------------------------------------------------------------|
| <b>Specific risks</b>                | None, this product is non-flammable nor explosive.                                  |
| <b>Hazardous combustion products</b> | Thermal decomposition or combustion products may include sulphur and sodium oxides. |

#### **5.3. Advice for firefighters**

|                                               |                                                                |
|-----------------------------------------------|----------------------------------------------------------------|
| <b>Protective actions during firefighting</b> | Avoid breathing fire gases or vapours.                         |
| <b>Special protective equipment</b>           | In the event of fire, wear self-contained breathing apparatus. |

#### **5.3. Further information**

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or groundwater.

## **SECTION 6: Accidental release measures**

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

#### **Personal precautions**

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

### **6.2. Environmental precautions**

#### **Environmental precautions**

Do not allow to enter drainage system, surface or ground water. Collect and dispose of spillage as indicated in Section 13.

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

#### **Methods for cleaning up**

Cover drains. Collect and absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust) or take up dry. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Usage precautions**

For precautions, see section 2.2.

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

#### **Storage precautions**

Store tightly closed, away from light and in a cool area. Do not store near acids. Storage advice to ensure the product remains in a useable condition throughout its specified shelf: Store at temperatures above 5°C. Store at temperatures not exceeding 25°C.

#### **Storage class**

Chemical storage.

### **7.3. Specific end use(s)**

#### **Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

## **SECTION 8: Exposure Controls/personal protection**

### **8.1. Control parameters: Occupational exposure limits**

Contains no substances with occupational exposure limit values.

### **8.2. Exposure controls**

|                                         |                                                                                                                                                                                                                                             |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Appropriate engineering controls</b> | Change contaminated clothing. Wash hands after working with substance.                                                                                                                                                                      |
| <b>Eye/face protection</b>              | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.                                                                                               |
| <b>Skin protection</b>                  | Gloves - material: Nitrile rubber; minimum layer thickness: 0.11 mm; break through time: 480 min.                                                                                                                                           |
| <b>Respiratory protection</b>           | Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. |

## **SECTION 9: Physical and Chemical Properties**

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

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Appearance</b>           | White crystals                |
| <b>Odour</b>                | None                          |
| <b>pH @20°C with Part A</b> | 7.38                          |
| <b>Melting point</b>        | 48°C                          |
| <b>Boiling point</b>        | >100°C                        |
| <b>Flash point</b>          | Not applicable                |
| <b>Self-inflammability</b>  | Product is not self-igniting. |
| <b>Danger of explosion</b>  | Product is not explosive.     |
| <b>Relative density</b>     | No data available             |
| <b>Water solubility</b>     | Miscible                      |

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

**Reactivity** See the other subsections of this section for further details.

### 10.2. Chemical stability

**Stability** Stable under the prescribed storage conditions. No stability concerns.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Under normal conditions of storage and use, no hazardous reactions will occur.

Risk of explosion with: nitrates, nitrites, peroxi compounds, strong oxidizing agents

Violent reactions possible with fluorine and acids

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid excessive heat for prolonged periods of time.  
Avoid contact with acids.

### 10.5. Incompatible materials

**Materials to avoid** Strong acids. Avoid contact with other photographic solutions.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition or combustion products may include the following substances: oxides of sulphur and sodium.

## **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

**Toxicological effects** This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components that comprise the mixture.

**Germ cell mutagenicity** The product contains no substances suspected of causing genetic defects.

**Carcinogenicity** The product contains no carcinogenic substances.

**Reproductive toxicity** No data available.

**Specific target organ toxicity** STOT - single exposure: No data available.

STOT – repeated exposure: No data available.

**Acute and chronic health hazards** No data available

| <b>Acute toxicity</b>                                       |      |                       |
|-------------------------------------------------------------|------|-----------------------|
| <b>LD/LC50 values that are relevant for classification:</b> |      |                       |
| Oral                                                        | LD50 | >2,000 mg/kg (rat)    |
| Inhalation                                                  | LC50 | 4h >2.6 mg/l (rat)    |
| Dermal                                                      | LD50 | >2,000 mg/kg (rabbit) |

**Skin corrosion/irritation** No irritation (rabbit)**Serious eye damage/eye irritation** No irritation (rabbit)**Respiratory or skin sensitization** None (mouse)**11.2. Other information**

When used and handled according to specifications, the product does not have any harmful effect according to our experience and the information provided to us.

**SECTION 12: Ecological Information****12.1. Toxicity****Acute toxicity – fish** LC50, 96 hours: 510 mg/l, *Lepomis macrochirus* (Bluegill sunfish)**Acute toxicity – aquatic invertebrates** EC50, 24 hours: 230 mg/l, *Daphnia magna* (Water flea)**Acute toxicity – algae** ErC50, 72 hours: 100 mg/l, *Pseudokirchneriella subcapitata* (green algae)**Acute toxicity – bacteria** EC50, 3 hours: >1,000 mg/l, activated sludge**12.2. Persistence and degradability****Persistence and degradability** The methods for determining biodegradability are not applicable to inorganic substances.

Chemical Oxygen Demand (COD) – 405 mg/g

Remarks: (IUCLID)

**12.3. Bioaccumulation****Bioaccumulation** No data available. Unlikely as product is soluble in water.

#### 12.4. Mobility in soil

**Mobility in soil**

Product is soluble in water.

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

#### 12.6 Other adverse effects

**Additional ecological information**

Discharge into the environment must be avoided.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Disposal of product**

Must not be disposed together with household waste. Do not allow product to reach sewage system. Must be specially treated under adherence to official regulations.

**Disposal of packaging**

Non contaminated packaging can be used for recycling. Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning with water.

**Waste class**

09 01 04 (fixer solutions)

### SECTION 14: Transport information

Not regulated for all modes of transportation.

|                                                                                 |                                                      |
|---------------------------------------------------------------------------------|------------------------------------------------------|
| <b>UN Number (ADR/RID, IMDG, IATA)</b>                                          | N/A                                                  |
| <b>UN Proper Shipping Name (ADR/RID, IMDG, IATA)</b>                            | Not applicable                                       |
| <b>Transport Hazard Class(es) ADR/RID, IMDG, IATA</b>                           | None                                                 |
| <b>Packing group (ADR/RID, IMDG, IATA)</b>                                      | Not applicable                                       |
| <b>Environmental hazards</b>                                                    | None                                                 |
| <b>Special precautions for user</b>                                             | None                                                 |
| <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable                                       |
| <b>Transport/Additional Information</b>                                         | Not dangerous according to the above specifications. |

## SECTION 15: Regulatory information

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

#### EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

#### Guidance

Worksafe Australia NOHSC 2012: Labelling of workplace substances.

Australian Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Australian Approved Criteria for Classifying Hazardous Substances (NOHSC 1008). Australian List of Designated Hazardous Substances (NOHSC 10005).

Australian National Code of Practice for the Preparation of Material safety Data Sheets (NOHSC 2011)

#### US State Regulations

#### State Regulations Comments

No information available.

#### Inventories

US – TSCA

Sodium thiosulphate

### 15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

## SECTION 16: Other information

#### General information

Zone Imaging Ltd believe the information and recommendations contained herein are based on correct and factual data. However, no express or implied guarantee or

warranty of any kind is made with respect to this information. Use this information only to supplement other information you have gathered and then make an independent determination about the completeness and suitability of all information to ensure the proper use and disposal of this product and the health and safety of employees and customers.

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**Abbreviations and acronyms**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road (Accord Européen sur le Transport des Marchandises Dangereuses par Route)

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EC: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration at which 50% of the animals will be expected to die.

LD50: Lethal dose at which 50% of the animals will be expected to die.

EC50: Effective concentration of test substance which results in a 50 percent reduction in either algae growth (EbC50) or algae growth rate (ErC50) or Daphnia immobilization.

**Hazard statements in full**

None