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Revision Number 4

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) PN000204
Product Name Pyrochrome
Synonyms None
Pure substance/mixture Mixture

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

Recommended use Laboratory reagent
For professional use only
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier

Associates of Cape Cod, Intl, Inc.
Unit 1 F/G/H Academy Business Park,
Lees Road, Knowsley,
Liverpool L33 7SA
(T) 44-151-547-7444

For further information, please contact

E-mail address custservice@acciusa.com

1.4. Emergency telephone number

Emergency telephone Chemtel
(International) +1-360-256-7365
(North America) +1-800-704-9215

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

| | |
|-----------------------------------|---------------------|
| Serious eye damage/eye irritation | Category 2 - (H319) |
|-----------------------------------|---------------------|

2.2. Label elements

**Signal word**

Warning

Hazard statements

H319 - Causes serious eye irritation.

Precautionary statements

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P280 - Wear eye protection/ face protection.

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

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

The product does not contain any substance(s) classified as PBT or vPvB. May be harmful if swallowed.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

| Chemical name | Weight-% | EC No (EU Index No) | UK REACH registration number | Classification according to GB CLP (SI 2020/1567 as amended) | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|--------------------------------|----------|-----------------------------|------------------------------|--|------------------------------------|----------|----------------------|
| Calcium chloride 10043-52-4 | 1-2 | (017-013-00-2) 233-140-8 | - | Eye Irrit. 2 (H319) | - | - | - |

Full text of H- and EUH-phrases: see section 16This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)**SECTION 4: First aid measures****4.1. Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open

while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact

Wash skin with soap and water.

Ingestion

Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

May cause redness and tearing of the eyes. Burning sensation.

Effects of Exposure

No information available.

4.3. Indication of any immediate medical attention and special treatment needed**Note to doctors**

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

None known based on information supplied.

5.2. Special hazards arising from the substance or mixture**Specific hazards arising from the chemical**

None known based on information supplied.

5.3. Advice for firefighters**Special protective equipment and precautions for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Other information

Refer to protective measures listed in Sections 7 and 8.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions**Environmental precautions**

See Section 12 for additional Ecological Information.

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

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labelled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific use(s) No information available.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public

| Chemical name | Oral | Dermal | Inhalation |
|---------------------------------|------------------------|--------|------------|
| Magnesium chloride 7786-30-3 | 7 mg/kg bw/day [4] [6] | | |

Notes

[4] Systemic health effects.
[6] Long term.

Predicted No Effect Concentration (PNEC)

| Chemical name | Freshwater | Freshwater (intermittent release) | Marine water | Marine water (intermittent release) | Air |
|---------------------------------|------------|-----------------------------------|--------------|-------------------------------------|-----|
| Magnesium chloride 7786-30-3 | 3.21 mg/L | 5.48 mg/L | 0.32 mg/L | | |

| Chemical name | Freshwater sediment | Marine sediment | Sewage treatment | Soil | Food chain |
|---------------------------------|-------------------------|-------------------------|------------------|----------------------|------------|
| Magnesium chloride 7786-30-3 | 288.9 mg/kg sediment dw | 28.89 mg/kg sediment dw | 90 mg/L | 662.77 mg/kg soil dw | |

8.2. Exposure controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection

If splashes are likely to occur, wear safety glasses with side-shields. Eye protection must conform to standard EN 166.

Hand protection

Wear suitable gloves. Gloves must conform to standard EN 374.

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|---------------------------------------|
| Appearance | White to off-white lyophilized pellet |
| Physical state | Solid |
| Colour | White to off-white |
| Odour | No information available |
| Odour threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|---------------|-------------------------|
| Melting point / freezing point | | No data available |
| Initial boiling point and boiling range | | No data available |
| Flammability | | No data available |
| Flammability Limit in Air | | |
| Upper flammability or explosive limits | | No data available |
| Lower flammability or explosive limits | | No data available |
| Flash point | | No data available |
| Autoignition temperature | | No data available |
| Decomposition temperature | | No data available |

| | |
|----------------------------|-------------------|
| pH | No data available |
| pH (as aqueous solution) | No data available |
| Kinematic viscosity | No data available |
| Dynamic viscosity | No data available |
| Water solubility | No data available |
| Solubility(ies) | No data available |
| Partition coefficient | No data available |
| Vapour pressure | No data available |
| Relative density | No data available |
| Bulk density | No data available |
| Liquid Density | No data available |
| Vapour density | No data available |
| Particle characteristics | |
| Particle Size | No data available |
| Particle Size Distribution | No data available |

Explosive properties No information available.
 Oxidising properties No information available.

9.2. Other information

VOC No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Toxicological information

Information on likely routes of exposure**Product Information**

| | |
|---------------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. |
| Eye contact | Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain. |
| Skin contact | Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation. |
| Ingestion | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be harmful if swallowed. |

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes.

Acute toxicity**Numerical measures of toxicity**

Based on available data, the classification criteria are not met.

The following values are calculated based on chapter 3.1 of the GHS document

| | |
|------------------------|-----------------|
| ATEmix (oral) | >2,000.00 mg/kg |
| ATEmix (dermal) | >2,000.00 mg/kg |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------|----------------------|-------------------------|-----------------|
| Calcium chloride | = 1000 mg/kg (Rat) | > 5000 mg/kg (Rabbit) | - |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|--|
| Skin corrosion/irritation | May cause skin irritation. |
| Serious eye damage/eye irritation | Classification based on data available for ingredients. Causes serious eye irritation. |
| Respiratory or skin sensitisation | Based on available data, the classification criteria are not met. |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met. |
| Carcinogenicity | Based on available data, the classification criteria are not met. |
| Reproductive toxicity | Based on available data, the classification criteria are not met. |

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|------------------|----------------------|---|----------------------------|--|
| Calcium chloride | - | LC50: =10650mg/L (96h, Lepomis macrochirus) | - | LC50: 2280000 - 3948000µg/L (48h, Daphnia magna) |

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

| Chemical name | PBT and vPvB assessment |
|------------------|---------------------------------|
| Calcium chloride | The substance is not PBT / vPvB |

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

| | |
|---|--------------------------|
| IMDG | Not regulated |
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not applicable |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special Precautions for Users | |
| Special Provisions | None |
| 14.7 Maritime transport in bulk according to IMO instruments | No information available |

| | |
|---|----------------|
| RID | Not regulated |
| 14.1 UN number | Not regulated |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not applicable |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special Precautions for Users | |
| Special Provisions | None |

| | |
|---|----------------|
| ADR | Not regulated |
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not applicable |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special Precautions for Users | |
| Special Provisions | None |

| | |
|---|----------------|
| IATA | Not regulated |
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not applicable |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special Precautions for Users | |
| Special Provisions | None |
| Note: | None |

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (UK REACH - Annex XIV). This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment**Chemical Safety Report**

Chemical safety assessments for substances in this mixture were not carried out

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H319 - Causes serious eye irritation

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| | | | |
|---------|-----------------------------|------|------------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |
| + | Sensitisers | SCBA | Self-contained breathing apparatus |

| Classification procedure | |
|---|--------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Revision Note Address update

This material safety data sheet complies with the requirements of UK REACH

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet