

## **Apollo Scientific**

Part Number: **OR019268** Version No: **1.1** Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878) Chemwatch Hazard Alert Code: 2

Issue Date: **16/09/2022** Print Date: **31/07/2023** S.REACH.GBR.EN

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

#### 1.1. Product Identifier

| Product name                     | '-Bromopropiophenone |  |
|----------------------------------|----------------------|--|
| Chemical Name                    | bromopropiophenone   |  |
| Synonyms                         | Not Available        |  |
| Chemical formula                 | C9-H9-Br-O           |  |
| Other means of<br>identification | Not Available        |  |
| CAS number                       | 10342-83-3           |  |
| EC number                        | 233-745-7            |  |

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

| Relevant identified uses | Not Available                                    |
|--------------------------|--|
| Uses advised against     | No specific uses advised against are identified. |

### 1.3. Details of the manufacturer or supplier of the safety data sheet

| Registered company name | Apollo Scientific                               |  |
|-------------------------|---|--|
| Address                 | /hitefield Road, Bredbury SK62QR United Kingdom |  |
| Telephone               | 1614060505                                      |  |
| Fax                     | 0161 406 0506                                   |  |
| Website                 | http://www.apolloscientific.co.uk/              |  |
| Email                   | sales@apolloscientific.co.uk                    |  |

### 1.4. Emergency telephone number

| Association / Organisation        | Not Available |
|-----------------------------------|---------------|
| Emergency telephone<br>numbers    | Not Available |
| Other emergency telephone numbers | Not Available |

#### **SECTION 2 Hazards identification**

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

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments <sup>[1]</sup>

H335 - Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, H302 - Acute Toxicity (Oral) Category 4, H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H317 - Sensitisation (Skin) Category 1

Legend: 1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

### 2.2. Label elements

| Z.Z. Eaber cicilients |         |
|-----------------------|---------|
| Hazard pictogram(s)   |         |
|                       |         |
| Signal word           | Warning |
|                       |         |

#### Hazard statement(s)

| H335 | May cause respiratory irritation.    |  |
|------|--------------------------------------|--|
| H302 | Harmful if swallowed.                |  |
| H315 | Causes skin irritation.              |  |
| H319 | Causes serious eye irritation.       |  |
| H317 | May cause an allergic skin reaction. |  |

#### Supplementary statement(s)

Not Applicable

#### Precautionary statement(s) Prevention

| P271 | Use only outdoors or in a well-ventilated area.                                  |  |
|------|--|--|
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |  |
| P261 | Avoid breathing dust/fumes.  |  |
| P264 | Wash all exposed external body areas thoroughly after handling.                  |  |
| P270 | Do not eat, drink or smoke when using this product.                              |  |
| P272 | Contaminated work clothing should not be allowed out of the workplace.           |  |

#### Precautionary statement(s) Response

| P302+P352      | IF ON SKIN: Wash with plenty of water.  |  |  |
|----------------|---|--|--|
| P305+P351+P338 | F IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |  |  |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.  |  |  |
| P337+P313      | If eye irritation persists: Get medical advice/attention.   |  |  |
| P362+P364      | Take off contaminated clothing and wash it before reuse.  |  |  |
| P301+P312      | IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.   |  |  |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.  |  |  |
| P330           | Rinse mouth.  |  |  |

#### Precautionary statement(s) Storage

| P405      | Store locked up.   |  |
|-----------|--|--|
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |  |

#### Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

### 2.3. Other hazards

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

### **SECTION 3 Composition / information on ingredients**

3.1.Substances

1. CAS No 2.EC No

SCL / M-Factor Nanoform Particle Characteristics

| 3.Index No<br>4.REACH No |     |                       | amendments     |                   |               |
|--------------------------|-----|-----------------------|----------------|-------------------|---------------|
| Not Available            | 100 | 4'-Bromopropiophenone | Not Applicable | Not<br>Applicable | Not Available |

Legend: 1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; \* EU IOELVs available; [e] Substance identified as having endocrine disrupting properties

#### 3.2.Mixtures

See 'Information on ingredients' in section 3.1

#### **SECTION 4 First aid measures**

### 4.1. Description of first aid measures

| Eye Contact  | <ul> <li>If this product comes in contact with eyes:</li> <li>Wash out immediately with water.</li> <li>If irritation continues, seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
|--------------|--|
| Skin Contact | <ul> <li>If skin or hair contact occurs:</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>   |
| Inhalation   | <ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>  |
| Ingestion    | <ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>  |

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

See Section 11

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

Treat symptomatically.

### **SECTION 5 Firefighting measures**

#### 5.1. Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

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

| Fire Incompatibility | None known. |
|----------------------|-------------|
|                      |             |

### 5.3. Advice for firefighters

| Fire Fighting         | <ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> <li>Equipment should be thoroughly decontaminated after use.</li> </ul> |
|-----------------------|--|
| Fire/Explosion Hazard | <ul> <li>Non combustible.</li> <li>Not considered a significant fire risk, however containers may burn.</li> </ul>   |

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

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

See section 8

#### 6.2. Environmental precautions

See section 12

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

| Minor Spills | <ul> <li>Clean up all spills immediately.</li> <li>Avoid contact with skin and eyes.</li> <li>Wear impervious gloves and safety glasses.</li> <li>Use dry clean up procedures and avoid generating dust.</li> <li>Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).</li> <li>Do NOT use air hoses for cleaning</li> <li>Place spilled material in clean, dry, sealable, labelled container.</li> </ul>   |
|--------------|--|
| Major Spills | <ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Control personal contact with the substance, by using protective equipment and dust respirator.</li> <li>Prevent spillage from entering drains, sewers or water courses.</li> <li>Avoid generating dust.</li> <li>Sweep, shovel up. Recover product wherever possible.</li> <li>Put residues in labelled plastic bags or other containers for disposal.</li> <li>If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

### 6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

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

### 7.1. Precautions for safe handling

| Safe handling                    | <ul> <li>Limit all unnecessary personal contact.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Avoid contact with incompatible materials.</li> <li>When handling, DO NOT eat, drink or smoke.</li> <li>Keep containers securely sealed when not in use.</li> <li>Avoid physical damage to containers.</li> <li>Always wash hands with soap and water after handling.</li> <li>Work clothes should be laundered separately.</li> <li>Use good occupational work practice.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul>                    |
|----------------------------------|--|
| Fire and explosion<br>protection | See section 5  |
| Other information                | <ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry area protected from environmental extremes.</li> <li>Store away from incompatible materials and foodstuff containers.</li> <li>Protect containers against physical damage and check regularly for leaks.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>For major quantities:</li> <li>Consider storage in bunded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams).</li> <li>Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.</li> </ul> |

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

| Suitable container  | <ul> <li>Lined metal can, lined metal pail/ can.</li> <li>Plastic pail.</li> <li>Polyliner drum.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul> |
|---|--|
| Storage incompatibility                                       | Avoid contamination of water, foodstuffs, feed or seed.<br>None known <ul> <li>Light sensitive</li> </ul>  |
| Hazard categories in<br>accordance with<br>Regulation (EC) No | Not Available  |

| 1272/2008                 |               |
|---------------------------|---------------|
| Qualifying quantity       |               |
| (tonnes) of dangerous     |               |
| substances as referred to | Not Available |
| in Article 3(10) for the  |               |
| application of            |               |

### 7.3. Specific end use(s)

See section 1.2

### SECTION 8 Exposure controls / personal protection

### 8.1. Control parameters

| Ingredient    | DNELs<br>Exposure Pattern Worker | PNECs<br>Compartment |  |
|---------------|----------------------------------|----------------------|--|
| Not Available | Not Available                    | Not Available        |  |

\* Values for General Population

### Occupational Exposure Limits (OEL)

### INGREDIENT DATA

| Source        | Ingredient    | Material name | TWA           | STEL          | Peak          | Notes         |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Not Available |

### Not Applicable

### Emergency Limits

| Ingredient            | TEEL-1        | TEEL-2        |               | TEEL-3        |
|-----------------------|---------------|---------------|---------------|---------------|
| 4'-Bromopropiophenone | Not Available | Not Available |               | Not Available |
|                       |               |               |               |               |
| Ingredient            | Original IDLH |               | Revised IDLH  |               |
| 4'-Bromopropiophenone | Not Available |               | Not Available |               |

### 8.2. Exposure controls

| Type of Contaminant:<br>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas<br>discharge (active generation into zone of rapid air motion)<br>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial<br>velocity into zone of very high rapid air motion).<br>Within each range the appropriate value depends on:   |   |  |  |  |  |
|---|---|--|--|--|--|
| Type of Contaminant:<br>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas<br>discharge (active generation into zone of rapid air motion)   | 2.5-10 m/s<br>(500-2000 f/min.)   |  |  |  |  |
|   | 1-2.5 m/s (200-500<br>f/min.)   |  |  |  |  |
|   | Air Speed:  |  |  |  |  |
| <ul> <li>Employers may need to use multiple types of controls to prevent employee overexposure.</li> <li>Local exhaust ventilation is required where solids are handled as powders or crystals; even wh large, a certain proportion will be powdered by mutual friction.</li> <li>If in spite of local exhaust an adverse concentration of the substance in air could occur, respirat considered.</li> <li>Such protection might consist of:         <ul> <li>(a): particle dust respirators, if necessary, combined with an absorption cartridge;</li> <li>(b): filter respirators with absorption cartridge or canister of the right type;</li> <li>(c): fresh-air hoods or masks.</li> </ul> </li> </ul> | <ul> <li>Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.</li> <li>If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.</li> <li>Such protection might consist of: <ul> <li>(a): particle dust respirators, if necessary, combined with an absorption cartridge;</li> <li>(b): filter respirators with absorption cartridge or canister of the right type;</li> <li>(c): fresh-air hoods or masks.</li> </ul> </li> <li>Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture</li> </ul> |  |  |  |  |
| engineering controls can be highly effective in protecting workers and will typically be independent<br>provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risi<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away fro<br>that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilut   | The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation<br>that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if   |  |  |  |  |

|   | 1: Room air currents minimal or favourable to capture  | 1: Disturbing room air currents   |  |  |
|---|--|---|--|--|
|   | 2: Contaminants of low toxicity or of nuisance value only.   | 2: Contaminants of high toxicity  |  |  |
|   | 3: Intermittent, low production.   | 3: High production, heavy use   |  |  |
|   | 4: Large hood or large air mass in motion  | 4: Small hood-local control only  |  |  |
|   | Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 r distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are  |   |  |  |
|   | installed or used.   |   |  |  |
| 8.2.2. Individual protection<br>measures, such as<br>personal protective<br>equipment |  |   |  |  |
| Eye and face protection   | document, describing the wearing of lenses or restriction<br>include a review of lens absorption and adsorption for the<br>Medical and first-aid personnel should be trained in their<br>event of chemical exposure, begin eye irrigation immedia  | enses may absorb and concentrate irritants. A written policy<br>s on use, should be created for each workplace or task. This should<br>e class of chemicals in use and an account of injury experience.<br>removal and suitable equipment should be readily available. In the<br>ately and remove contact lens as soon as practicable. Lens should<br>lens should be removed in a clean environment only after workers  |  |  |
| Skin protection   | See Hand protection below  |   |  |  |
| Hands/feet protection   | can not be calculated in advance and has therefore to be child the exact break through time for substances has to be obtain observed when making a final choice.<br>Personal hygiene is a key element of effective hand care. Gli should be washed and dried thoroughly. Application of a non Suitability and durability of glove type is dependent on usage in frequency and duration of contact,<br>chemical resistance of glove material,<br>glove thickness and<br>dexterity<br>Select gloves tested to a relevant standard (e.g. Europe EN<br>When prolonged or frequently repeated contact may occur,<br>greater than 240 minutes according to EN 374, AS/NZS 216<br>When only brief contact is expected, a glove with a protecti<br>according to EN 374, AS/NZS 2161.10.1 or national equivale<br>Some glove polymer types are less affected by movement<br>long-term use.<br>Contaminated gloves should be replaced.<br>As defined in ASTM F-739-96 in any application, gloves are<br>Excellent when breakthrough time > 480 min<br>Good when breakthrough time > 20 min<br>Fair when breakthrough time < 20 min<br>Fair when breakthrough time < 20 min<br>Some glove material degrades<br>For general applications, gloves with a thickness typically group<br>the should be emphasised that glove thickness is not necessan<br>permeation efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove thickness is not necessan<br>permeation efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove thickness is not necessan<br>permeation efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the efficiency of the glove will be dependent on the | <ul> <li>and from the manufacturer of the protective gloves and has to be</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection of gloves include:</li> <li>a. Important factors in the selection class of 5 or higher (breakthrough time 1.10.1 or national equivalent) is recommended.</li> <li>and class of 3 or higher (breakthrough time greater than 60 minutes ent) is recommended.</li> <li>and this should be taken into account when considering gloves for rated as:</li> </ul> |  |  |
|   | Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.<br>Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.  |   |  |  |

- nitrile rubber.
- butyl rubber.

Continued...

#### 4'-Bromopropiophenone

|                  | <ul> <li>fluorocaoutchouc.</li> <li>polyvinyl chloride.</li> <li>Gloves should be examined for wear and/ or degradation constantly.</li> </ul> |
|------------------|--|
| Body protection  | See Other protection below   |
| Other protection | No special equipment needed when handling small quantities.<br><b>OTHERWISE:</b><br>• Overalls.<br>• Barrier cream.<br>• Eyewash unit.         |

#### **Respiratory protection**

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES                      | P1<br>Air-line*      | -                    | PAPR-P1<br>-           |
| up to 50 x ES                      | Air-line**           | P2                   | PAPR-P2                |
| up to 100 x ES                     | -                    | P3                   | -                      |
|                                    |                      | Air-line*            | -                      |
| 100+ x ES                          | -                    | Air-line**           | PAPR-P3                |

\* - Negative pressure demand \*\* - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

• The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

• Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.

• Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.

• Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

· Use approved positive flow mask if significant quantities of dust becomes airborne.

· Try to avoid creating dust conditions.

#### 8.2.3. Environmental exposure controls

See section 12

#### **SECTION 9** Physical and chemical properties

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

| Appearance                                      | Not Available |  |               |
|---|---------------|--|---------------|
| Physical state                                  | Solid         | Relative density (Water = 1)               | Not Available |
| Odour   | Not Available | Partition coefficient<br>n-octanol / water | Not Available |
| Odour threshold                                 | Not Available | Auto-ignition temperature<br>(°C)          | Not Available |
| pH (as supplied)                                | Not Available | Decomposition<br>temperature (°C)          | Not Available |
| Melting point / freezing<br>point (°C)          | 45-47         | Viscosity (cSt)                            | Not Available |
| Initial boiling point and<br>boiling range (°C) | 138-140       | Molecular weight (g/mol)                   | Not Available |
| Flash point (°C)                                | Not Available | Taste                                      | Not Available |
| Evaporation rate                                | Not Available | Explosive properties                       | Not Available |
| Flammability                                    | Not Available | Oxidising properties                       | Not Available |

| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm<br>or mN/m)  | Not Applicable |
|---------------------------|---------------|--------------------------------------|----------------|
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol)            | Not Available  |
| Vapour pressure (kPa)     | Not Available | Gas group                            | Not Available  |
| Solubility in water       | Not Available | pH as a solution (1%)                | Not Available  |
| Vapour density (Air = 1)  | Not Available | VOC g/L                              | Not Available  |
| Nanoform Solubility       | Not Available | Nanoform Particle<br>Characteristics | Not Available  |
| Particle Size             | Not Available |                                      |                |

#### 9.2. Other information

Not Available

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

| 10.1.Reactivity                             | See section 7.2   |
|---|---|
| 10.2. Chemical stability                    | Product is considered stable and hazardous polymerisation will not occur. |
| 10.3. Possibility of<br>hazardous reactions | See section 7.2   |
| 10.4. Conditions to avoid                   | See section 7.2   |
| 10.5. Incompatible materials                | See section 7.2   |
| 10.6. Hazardous decomposition products      | See section 5.3   |

### **SECTION 11 Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Information on toxicological effects

| Inhaled      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. |
|--------------|---|
| Ingestion    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.  |
| Skin Contact | The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.             |
| Eye          | Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.  |
| Chronic      | Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.  |

| 4 Dramannanianhanana  | TOXICITY  | IRRITATION    |
|-----------------------|---|---------------|
| 4'-Bromopropiophenone | Not Available   | Not Available |
| Legend:               | <ol> <li>Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS.</li> <li>Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances</li> </ol> |               |

| Acute Toxicity                    | × | Carcinogenicity          | × |
|-----------------------------------|---|--------------------------|---|
| Skin Irritation/Corrosion         | × | Reproductivity           | × |
| Serious Eye<br>Damage/Irritation  | × | STOT - Single Exposure   | * |
| Respiratory or Skin sensitisation | × | STOT - Repeated Exposure | × |
| Mutagenicity                      | × | Aspiration Hazard        | × |

Legend: X − Data either not available or does not fill the criteria for classification ✓ − Data available to make classification

#### 11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

#### 11.2.2. Other information

See Section 11.1

#### **SECTION 12 Ecological information**

#### 12.1. Toxicity

|                       | Endpoint   | Test Duration (hr) | Species       | Value            | Source           |
|-----------------------|--|--------------------|---------------|------------------|------------------|
| 4'-Bromopropiophenone | Not<br>Available   | Not Available      | Not Available | Not<br>Available | Not<br>Available |
| Legend:               | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity<br>4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) -<br>Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data |                    |               | -                |                  |

#### 12.2. Persistence and degradability

| Ingredient | Persistence: Water/Soil               | Persistence: Air                      |
|------------|---------------------------------------|---------------------------------------|
|            | No Data available for all ingredients | No Data available for all ingredients |

#### 12.3. Bioaccumulative potential

| Ingredient Bioa | Bioaccumulation                      |  |
|-----------------|--------------------------------------|--|
| No I            | o Data available for all ingredients |  |

### 12.4. Mobility in soil

| Ingredient | Mobility                              |
|------------|---------------------------------------|
|            | No Data available for all ingredients |

### 12.5. Results of PBT and vPvB assessment

|                            | Р             | В             | т             |
|----------------------------|---------------|---------------|---------------|
| Relevant available data    | Not Available | Not Available | Not Available |
| PBT                        | ×             | ×             | ×             |
| vPvB                       | ×             | ×             | ×             |
| PBT Criteria fulfilled? No |               |               |               |
| vPvB                       |               |               | No            |

#### 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

### 12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

### **SECTION 13 Disposal considerations**

### 13.1. Waste treatment methods

| Product / Packaging<br>disposal | <ul> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Management Authority for disposal.</li> <li>Bury residue in an authorised landfill.</li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |
|---------------------------------|--|
| Waste treatment options         | Not Available  |
| Sewage disposal options         | Not Available  |

### **SECTION 14 Transport information**

# Labels Required

| Marine Pollutant | NO             |
|------------------|----------------|
| HAZCHEM          | Not Applicable |

### Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| 14.1. UN number or ID<br>number    | Not Applicable           | Not Applicable |                |   |  |
|------------------------------------|--------------------------|----------------|----------------|---|--|
| 14.2. UN proper shipping name      | Not Applicable           |                |                |   |  |
| 14.3. Transport hazard class(es)   | Class<br>Subsidiary risk | Not Applicab   |                |   |  |
| 14.4. Packing group                | Not Applicable           |                |                |   |  |
| 14.5. Environmental<br>hazard      | Not Applicable           |                |                |   |  |
|                                    | Hazard identifica        | tion (Kemler)  | Not Applicable |   |  |
|                                    | Classification code      |                | Not Applicable | - |  |
| 14.6. Special precautions for user | Hazard Label             |                | Not Applicable |   |  |
|                                    | Special provisions       |                | Not Applicable |   |  |
|                                    | Limited quantity         |                | Not Applicable |   |  |
|                                    | Tunnel Restrictio        | n Code         | Not Applicable |   |  |

### Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

|                                    | -   |                                    |                |  |  |
|------------------------------------|---|------------------------------------|----------------|--|--|
| 14.1. UN number                    | Not Applicable  | Not Applicable                     |                |  |  |
| 14.2. UN proper shipping name      | Not Applicable  |                                    |                |  |  |
|                                    | ICAO/IATA Class   | Not Applicable                     |                |  |  |
| 14.3. Transport hazard class(es)   | ICAO / IATA Subrisk                                       | ICAO / IATA Subrisk Not Applicable |                |  |  |
| 0.000(00)                          | ERG Code Not Applicable                                   |                                    |                |  |  |
| 14.4. Packing group                | Not Applicable  | Not Applicable                     |                |  |  |
| 14.5. Environmental<br>hazard      | Not Applicable  |                                    |                |  |  |
|                                    | Special provisions  |                                    | Not Applicable |  |  |
|                                    | Cargo Only Packing Ir                                     | nstructions                        | Not Applicable |  |  |
| 14.6. Special precautions for user | Cargo Only Maximum Qty / Pack                             |                                    | Not Applicable |  |  |
|                                    | Passenger and Cargo Packing Instructions                  |                                    | Not Applicable |  |  |
|                                    | Passenger and Cargo Maximum Qty / Pack                    |                                    | Not Applicable |  |  |
|                                    | Passenger and Cargo Limited Quantity Packing Instructions |                                    | Not Applicable |  |  |
|                                    | Passenger and Cargo                                       | Limited Maximum Qty / Pack         | Not Applicable |  |  |

### Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| 14.1. UN number                  | Not Applicable   |  |
|----------------------------------|--|--|
| 14.2. UN proper shipping name    | Not Applicable   |  |
| 14.3. Transport hazard class(es) | IMDG Class Not Applicable<br>IMDG Subrisk Not Applicable |  |
|                                  |  |  |
| 14.4. Packing group              | Not Applicable   |  |
| 14.5. Environmental<br>hazard    | Not Applicable   |  |

|                                       | EMS Number         | Not Applicable |
|---------------------------------------|--------------------|----------------|
| 14.6. Special precautions<br>for user | Special provisions | Not Applicable |
|                                       | Limited Quantities | Not Applicable |

#### Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| 14.1. UN number                    | Not Applicable                |                |  |  |
|------------------------------------|-------------------------------|----------------|--|--|
| 14.2. UN proper shipping name      | Not Applicable                |                |  |  |
| 14.3. Transport hazard class(es)   | Not Applicable Not Applicable |                |  |  |
| 14.4. Packing group                | Not Applicable                |                |  |  |
| 14.5. Environmental<br>hazard      | Not Applicable                |                |  |  |
|                                    | Classification code           | Not Applicable |  |  |
|                                    | Special provisions            | Not Applicable |  |  |
| 14.6. Special precautions for user | Limited quantity              | Not Applicable |  |  |
|                                    | Equipment required            | Not Applicable |  |  |
|                                    | Fire cones number             | Not Applicable |  |  |
|                                    |                               |                |  |  |

#### 14.7. Maritime transport in bulk according to IMO instruments

#### 14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

#### 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|--------------|-------|
|              |       |

### 14.7.3. Transport in bulk in accordance with the IGC Code

| Product name | Ship Type |
|--------------|-----------|
|              |           |

### **SECTION 15 Regulatory information**

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

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

#### Information according to 2012/18/EU (Seveso III):

| Seveso Category | Not Available |
|-----------------|---------------|
|                 |               |

#### 15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

#### ECHA SUMMARY

Not Applicable

#### **National Inventory Status**

| National Inventory                                 | Status        |
|--|---------------|
| Australia - AIIC / Australia<br>Non-Industrial Use | Not Available |
| Canada - DSL                                       | Not Available |
| Canada - NDSL                                      | Not Available |
| China - IECSC                                      | Not Available |
| Europe - EINEC / ELINCS /<br>NLP                   | Not Available |
| Japan - ENCS                                       | Not Available |

| National Inventory  | Status   |
|---------------------|--|
| Korea - KECI        | Not Available  |
| New Zealand - NZIoC | Not Available  |
| Philippines - PICCS | Not Available  |
| USA - TSCA          | Not Available  |
| Taiwan - TCSI       | Not Available  |
| Mexico - INSQ       | Not Available  |
| Vietnam - NCI       | Not Available  |
| Russia - FBEPH      | Not Available  |
|                     | Yes = All CAS declared ingredients are on the inventory  |
| Legend:             | No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |

#### **SECTION 16 Other information**

| Revision Date | 16/09/2022 |
|---------------|------------|
| Initial Date  | 16/09/2022 |

#### Full text Risk and Hazard codes

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

- EN 374 Protective gloves against chemicals and micro-organisms
- EN 13832 Footwear protecting against chemicals
- EN 133 Respiratory protective devices

#### **Definitions and abbreviations**

- PC TWA: Permissible Concentration-Time Weighted Average
- PC STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit.
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL :No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act

TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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