SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

2-Bromo-4’-methoxyacetophenone

Product Description: 2-Bromo-4’-methoxyacetophenone
Cat No.: A13415
Synonyms: 4’-Methoxyphenacyl bromide
CAS-No: 2632-13-5
Molecular Formula: C9 H9 Br O2
Supplier: Alfa Aesar
Avocado Research Chemicals, Ltd.
Shore Road
Port of Heysham Industrial Park
Heysham, Lancashire LA3 2XY
United Kingdom
Office Tel: +44 (0) 1524 850506
Office Fax: +44 (0) 1524 850608

Emergency Telephone Number
Call Carechem 24 at
+44 (0) 1865 407333 (English only);
+44 (0) 1235 239670 (Multi-language)

E-mail address
uktech@alfa.com
www.alfa.com
Product Safety Department

Recommended Use
Laboratory chemicals.

Uses advised against
No Information available

SECTION 2. HAZARD IDENTIFICATION

Physical State: Solid
Appearance: Light cream
Odor: Odorless

Emergency Overview
Harmful if swallowed. Causes severe skin burns and eye damage. Lachrymator (substance which increases the flow of tears).

Classification of the substance or mixture

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Category 1 B</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label Elements

![Exclamation Mark]
![Drench Hose]
**Signal Word**  
Danger

**Hazard Statements**  
H302 - Harmful if swallowed  
H314 - Causes severe skin burns and eye damage

**Precautionary Statements**  
**Prevention**  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
**Response**  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/ physician  
P330 - Rinse mouth  
P331 - Do NOT induce vomiting  
P363 - Wash contaminated clothing before reuse  
**Storage**  
P403 - Store in a well-ventilated place  
**Disposal**  
P501 - Dispose of contents/ container to an approved waste disposal plant

**Physical and Chemical Hazards**  
None identified.  
**Health Hazards**  
Harmful if swallowed. Corrosive. Causes skin and eye burns. Lachrymator (substance which increases the flow of tears).  
**Environmental hazards**  
Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil.

**Other Hazards**  
Lachrymator (substance which increases the flow of tears)

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanone, 2-bromo-1-(4-methoxyphenyl)-</td>
<td>2632-13-5</td>
<td>98</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES

**Eye Contact**  
Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin Contact**  
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

**Inhalation**  
Remove from exposure, lie down. Move to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required.

**Ingestion**  
Do not induce vomiting. Call a physician immediately. Clean mouth with water. Get medical attention.

**Most important symptoms and effects**
Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Self-Protection of the First Aider
Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Notes to Physician
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide (CO\textsubscript{2}). Dry chemical. Chemical foam.

Extinguishing media which must not be used for safety reasons
No information available.

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Ensure adequate ventilation.

Environmental Precautions
See Section 12 for additional ecological information.

Methods for Containment and Clean Up
Sweep up or vacuum up spillage and collect in suitable container for disposal.

Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

Handling
Do not breathe dust. Do not get in eyes, on skin, or on clothing. Use only in area provided with appropriate exhaust ventilation.

Storage

Specific Use(s)
Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Monitoring methods
BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Exposure Controls

Engineering Measures
Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eye Protection
Goggles (European standard - EN 166)

Hand Protection
Protective gloves

Inspect gloves before use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information).
Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.
Remove gloves with care avoiding skin contamination.

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Large scale/emergency use
Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Particulates filter conforming to EN 143

Small scale/Laboratory use
Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended half mask: Particle filtering: EN149:2001
When RPE is used a face piece Fit Test should be conducted

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Light cream

Physical State
Solid

Odor
Odorless

Odor Threshold
No data available

pH
No information available
2-Bromo-4'-methoxyacetophenone

**Molecular Formula**: C9 H9 Br O2
**Molecular Weight**: 229.07

**SECTION 10. STABILITY AND REACTIVITY**

- **Stability**: Stable under normal conditions.
- **Hazardous Reactions**: No information available.
- **Hazardous Polymerization**: No information available.
- **Conditions to Avoid**: Incompatible products.
- **Materials to avoid**: Bases. Strong oxidizing agents. Amines.

**SECTION 11. TOXICOLOGICAL INFORMATION**

- **Product Information**
  - (a) acute toxicity: 
  - (b) skin corrosion/irritation: Category 1 B
  - (c) serious eye damage/irritation: Category 1
  - (d) respiratory or skin sensitization:
    - Respiratory: No data available
    - Skin: No data available
  - (e) germ cell mutagenicity: No data available
  - (f) carcinogenicity: No data available
    - There are no known carcinogenic chemicals in this product
(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available
   Target Organs None known.

(j) aspiration hazard; Not applicable
   Solid

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects, both acute and delayed Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Persistence and Degradability
   Persistence Insoluble in water.

Bioaccumulative Potential May have some potential to bioaccumulate

Mobility in soil Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water solubility

Endocrine Disruptor Information
   This product does not contain any known or suspected endocrine disruptors

Persistent Organic Pollutant
   This product does not contain any known or suspected substance

Ozone Depletion Potential
   This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

Other Information Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not dispose of waste into sewer. Large amounts will affect pH and harm aquatic organisms.

SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport
2-Bromo-4'-methoxyacetophenone

**SAFETY DATA SHEET**

**UN-No** 3261
**Proper Shipping Name** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S
**Hazard Class** 8
**Packing Group** II

**IMDG/IMO**

**UN-No** 3261
**Proper Shipping Name** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S
**Hazard Class** 8
**Packing Group** II

**IATA**

**UN-No** 3261
**Proper Shipping Name** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
**Hazard Class** 8
**Packing Group** II

**Special Precautions for User** No special precautions required

**SECTION 15. REGULATORY INFORMATION**

**International Inventories**

<table>
<thead>
<tr>
<th>Component</th>
<th>The Inventory of Hazardous Chemicals (2015 Edition)</th>
<th>List of Dangerous Goods GB 12268-2012</th>
<th>Taiwan Toxic Chemical Substances Inventory</th>
<th>IECSC</th>
<th>EINECS</th>
<th>TSCA</th>
<th>DSL</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanone, 2-bromo-1-(4-methoxyphenyl)</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>220-118-8</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**National Regulations**

**SECTION 16. OTHER INFORMATION**

**Prepared By** Health, Safety and Environmental Department
**Revision Date** 15-Mar-2018
**Revision Summary** SDS authoring systems update, replaces ChemGes SDS No. 2632-13-5/2.

**Training Advice**
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.
Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.
First aid for chemical exposure, including the use of eye wash and safety showers.

**Legend**
CAS - Chemical Abstracts Service
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit
ACGIH - American Conference of Governmental Industrial Hygienists
DNEL - Derived No Effect Level
RPE - Respiratory Protective Equipment
LC50 - Lethal Concentration 50%
NOEC - No Observed Effect Concentration
PBT - Persistent, Bioaccumulative, Toxic

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japanese Existing and New Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

Key literature references and sources for data
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

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