

# 2,4-Dimethoxyphenacyl bromide Apollo Scientific

Part Number: **OR2851** Version No: **2.2** Safety Data Sheet

#### Chemwatch Hazard Alert Code: 3

Issue Date: **06/07/2023** Print Date: **06/07/2023** S.GHS.GB-NIR.EN

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

#### **Product Identifier**

Product name	2,4-Dimethoxyphenacyl bromide	
Chemical Name	2-bromo-2',4'-dimethoxyacetophenone	
Synonyms	ailable	
Proper shipping name	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	
Chemical formula	C10-H11-Br-O3	
Other means of identification	Not Available	
CAS number	60965-26-6*	

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

Relevant identified uses Not Available

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

Registered company name	Apollo Scientific	Apollo Scientific Itd	
Address	Whitefield Road, Bredbury SK62QR United Kingdom	Whitefield Road, Bredbury Cheshire SK6 2QR United Kingdom (NI)	
Telephone	01614060505	+44(0) 161 406 0505	
Fax	0161 406 0506	Not Available	
Website	http://www.apolloscientific.co.uk/	apolloscientific.co.uk	
Email	sales@apolloscientific.co.uk	sales@apolloscientific.co.uk	

### **Emergency telephone number**

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

## **SECTION 2 Hazards identification**

### Classification of the substance or mixture

Classification according to regulation (EC) No 1272/2008 [CLP] and

H314 - Skin Corrosion/Irritation Category 1B, H290 - Corrosive to Metals Category 1, H318 - Serious Eye Damage/Eye Irritation Category 1, H335 - Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, H317 - Sensitisation (Skin) Category 1

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

#### Label elements







Signal word

Danger

## Hazard statement(s)

H314	Causes severe skin burns and eye damage.	
H290	May be corrosive to metals.	
H335	May cause respiratory irritation.	
H317	May cause an allergic skin reaction.	

## Precautionary statement(s) Prevention

P260	Do not breathe dust/fume.
P264	Wash all exposed external body areas thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P234	Keep only in original packaging.
P272	Contaminated work clothing should not be allowed out of the workplace.

## Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].	
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/doctor/physician/first aider.	
P302+P352	IF ON SKIN: Wash with plenty of water.	
P363	Wash contaminated clothing before reuse.	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	
P362+P364	Take off contaminated clothing and wash it before reuse.	
P390	Absorb spillage to prevent material damage.	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	

## 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.

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

## Substances

CAS No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor
60965-26-6*	100	2,4-Dimethoxyphenacyl bromide	Skin Corrosion/Irritation Category 1B, Corrosive to Metals Category 1, Serious Eye Damage/Eye Irritation Category 1, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Sensitisation (Skin) Category 1; H314, H290, H335, H317 [1]	Not Available

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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

#### **Mixtures**

See section above for composition of Substances

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

Description of first aid m	easures
Eye Contact	If this product comes in contact with the eyes:  Immediately hold eyelids apart and flush the eye continuously with running water.  Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.  Transport to hospital or doctor without delay.  Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs:  If skin or hair contact occurs:  Immediately flush body and clothes with large amounts of water, using safety shower if available.  Quickly remove all contaminated clothing, including footwear.  Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.  Transport to hospital, or doctor.
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>Transport to hospital, or doctor, without delay.</li> <li>Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.</li> <li>Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).</li> <li>As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.</li> <li>Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.</li> <li>This must definitely be left to a doctor or person authorised by him/her. (ICSC13719)</li> </ul>
Ingestion	<ul> <li>For advice, contact a Poisons Information Centre or a doctor at once.</li> <li>Urgent hospital treatment is likely to be needed.</li> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Transport to hospital or doctor without delay.</li> </ul>

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

For acute or short term repeated exposures to strong acids:

- Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
- ▶ Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
- Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues.

#### INGESTION:

- Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
- lacktriangledown DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.
- ▶ Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one or two glasses in an adult.
- ▶ Charcoal has no place in acid management.
- ▶ Some authors suggest the use of lavage within 1 hour of ingestion.

#### SKIN

- Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping.
- ▶ Deep second-degree burns may benefit from topical silver sulfadiazine.

#### EYE

- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjuctival cul-de-sacs. Irrigation should last at least 20-30 minutes. **DO NOT** use neutralising agents or any other additives. Several litres of saline are required.
- Cycloplegic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears

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may be indicated dependent on the severity of the injury.

▶ Steroid eye drops should only be administered with the approval of a consulting ophthalmologist).

[Ellenhorn and Barceloux: Medical Toxicology]

### **SECTION 5 Firefighting measures**

#### **Extinguishing media**

- ▶ Foam
- Dry chemical powder.
- ▶ BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

### Special hazards arising from the substrate or mixture

Fire Incompatibility

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may

#### Advice for firefighters

Fire Fighting	
Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>May emit acrid smoke and corrosive fumes.</li> <li>Combustion products include:</li> <li>carbon monoxide (CO)</li> <li>carbon dioxide (CO2)</li> <li>other pyrolysis products typical of burning organic material.</li> </ul>

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

## Personal precautions, protective equipment and emergency procedures

See section 8

## **Environmental precautions**

See section 12

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

Minor Spills	<ul> <li>Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.</li> <li>Check regularly for spills and leaks.</li> <li>Remove all ignition sources.</li> <li>Clean up all spills immediately.</li> <li>Avoid contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Use dry clean up procedures and avoid generating dust.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	

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

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

Safe handling

## Precautions for safe handling

## Avoid all personal contact, including inhalation.

## Wear protective clothing when risk of exposure occurs.

- ▶ Use in a well-ventilated area.
- Avoid contact with moisture.
- Avoid contact with incompatible materials.
- ▶ When handling, **DO NOT** eat, drink or smoke.

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	<ul> <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. Launder contaminated clothing before re-use.</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>
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry, well-ventilated area.</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> </ul>

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

Conditions for sale stora	ge, including any incompatibilities
Suitable container	<ul> <li>DO NOT use aluminium or galvanised containers</li> <li>Check regularly for spills and leaks</li> <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> <li>For low viscosity materials</li> <li>Drums and jerricans must be of the non-removable head type.</li> <li>Where a can is to be used as an inner package, the can must have a screwed enclosure.</li> <li>For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.):</li> <li>Removable head packaging;</li> <li>Cans with friction closures and</li> <li>low pressure tubes and cartridges</li> <li>may be used.</li> <li>Where combination packages are used, and the inner packages are of glass, porcelain or stoneware, there must be sufficient inert cushioning material in contact with inner and outer packages unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.</li> </ul>
Storage incompatibility	<ul> <li>Segregate from alkalies, oxidising agents and chemicals readily decomposed by acids, i.e. cyanides, sulfides, carbonates.</li> <li>Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.</li> <li>Avoid strong bases.</li> <li>Lachrymatory</li> <li>Light sensitive</li> </ul>

## **SECTION 8 Exposure controls / personal protection**

### **Control parameters**

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

## **Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
2,4-Dimethoxyphenacyl bromide	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
2,4-Dimethoxyphenacyl bromide	Not Available	Not Available

#### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	ntional Exposure Band Rating Occupational Exposure Band Limit	
2,4-Dimethoxyphenacyl	E ≤ 0.01 mg/m³		
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.		

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Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
bromide			
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.		

#### **Exposure controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

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The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

An approved self contained breathing apparatus (SCBA) may be required in some situations.

Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

## Appropriate engineering controls

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
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 at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters 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.

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

Eye and face protection













## Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]

- Full face shield may be required for supplementary but never for primary protection of eyes.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

#### Skin protection

See Hand protection below

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Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>NOTE:</li> <li>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>PVC Apron.</li> <li>PVC protective suit may be required if exposure severe.</li> <li>Eyewash unit.</li> <li>Ensure there is ready access to a safety shower.</li> </ul>

## **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 Air-line*	-	PAPR-P1
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

<sup>\* -</sup> 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)

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

## Information on basic physical and chemical properties

Appearance	Not Available		
Physical state	Solid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	102-104	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	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 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

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

Reactivity	See section 7
Chemical stability	► Contact with alkaline material liberates heat
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

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

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Information	on toxico	ıodıcaı	errects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.  Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness.
Ingestion	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.  The material has NOT 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 can produce chemical burns following direct contact with the skin.  Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.  Open cuts, abraded or irritated skin should not be exposed to this material  Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.  Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Еуе	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.
Chronic	Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems.  Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.  Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.  Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs.

Legend:

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

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Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

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

Legend: X - L

★ - Data either not available or does not fill the criteria for classification

✓ – Data available to make classification

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

#### **Toxicity**

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Prevent, by any means available, spillage from entering drains or water courses.

DO NOT discharge into sewer or waterways.

### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4-Dimethoxyphenacyl bromide	HIGH	HIGH

#### Bioaccumulative potential

Ingredient	Bioaccumulation
2,4-Dimethoxyphenacyl bromide	LOW (LogKOW = 2.1789)

## Mobility in soil

Ingredient	Mobility
2,4-Dimethoxyphenacyl bromide	LOW (KOC = 46.17)

#### **SECTION 13 Disposal considerations**

## Waste treatment methods

- ▶ Containers may still present a chemical hazard/ danger when empty.
- ▶ Return to supplier for reuse/ recycling if possible.

#### Otherwise

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.

## Product / Packaging disposal

#### Recycle wherever possible.

- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Treat and neutralise at an approved treatment plant. Treatment should involve: Mixing or slurrying in water; Neutralisation with soda-lime or soda-ash followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water. Observe all label safeguards until containers are cleaned and destroyed.

#### **SECTION 14 Transport information**

## **Labels Required**

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**Marine Pollutant** 

## Land transport (ADR-RID)

UN number or ID number	3261	3261		
UN proper shipping name	CORROSIVE SOL	ID, ACIDIC, OI	RGANIC, N.O.S.	
Transport hazard class(es)	Class	8		
	Subsidiary risk	Not Applicab	ble	
Packing group				
Environmental hazard	Not Applicable			
	Hazard identification (Kemler)		80	
	Classification code		C4	
Special precautions for	Hazard Label		8	
user	Special provisions		274	
	Limited quantity		5 kg	
	Tunnel Restriction	on Code	3 (E)	
		on Code	<del>                                     </del>	

## Air transport (ICAO-IATA / DGR)

UN number	3261		
UN proper shipping name	Corrosive solid, acidic, o	organic, n.o.s. *	
	ICAO/IATA Class	8	
Transport hazard class(es)	ICAO / IATA Subrisk	Not Applicable	
	ERG Code	8L	
Packing group	Ш		
Environmental hazard	Not Applicable		
	Special provisions		A3 A803
	Cargo Only Packing Instructions		864
	Cargo Only Maximum	Qty / Pack	100 kg
Special precautions for user	Passenger and Cargo Packing Instructions		860
4001	Passenger and Cargo	Maximum Qty / Pack	25 kg
	Passenger and Cargo	Limited Quantity Packing Instructions	Y845
	Passenger and Cargo	Limited Maximum Qty / Pack	5 kg

## Sea transport (IMDG-Code / GGVSee)

UN number	3261		
UN proper shipping name	CORROSIVE SOLI	D, ACIDIC, ORGANIC, N.O.S.	
Transport hazard class(es)		8 Not Applicable	
Packing group	III		
Environmental hazard	Not Applicable		
Special precautions for user	EMS Number  Special provisions  Limited Quantities		

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UN number	3261		
UN proper shipping name	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.		
Transport hazard class(es)	8 Not Applicable		
Packing group	III		
Environmental hazard	Not Applicable		
Special precautions for user	Classification code C4 Special provisions 274 Limited quantity 5 kg Equipment required PP, EP Fire cones number 0		

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

Not Applicable

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

Product name	Group
2,4-Dimethoxyphenacyl bromide	Not Available

## Transport in bulk in accordance with the IGC Code

Product name	Ship Type
2,4-Dimethoxyphenacyl bromide	Not Available

## **SECTION 15 Regulatory information**

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

2,4-Dimethoxyphenacyl bromide is found on the following regulatory lists

Europe EC Inventory European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

## **National Inventory Status**

National Inventory Ctatus		
National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	No (2,4-Dimethoxyphenacyl bromide)	
Canada - DSL	No (2,4-Dimethoxyphenacyl bromide)	
Canada - NDSL	No (2,4-Dimethoxyphenacyl bromide)	
China - IECSC	No (2,4-Dimethoxyphenacyl bromide)	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	No (2,4-Dimethoxyphenacyl bromide)	
Korea - KECI	No (2,4-Dimethoxyphenacyl bromide)	
New Zealand - NZIoC	No (2,4-Dimethoxyphenacyl bromide)	
Philippines - PICCS	No (2,4-Dimethoxyphenacyl bromide)	
USA - TSCA	No (2,4-Dimethoxyphenacyl bromide)	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (2,4-Dimethoxyphenacyl bromide)	
Vietnam - NCI	No (2,4-Dimethoxyphenacyl bromide)	
Russia - FBEPH	No (2,4-Dimethoxyphenacyl bromide)	
Legend:	Yes = All CAS declared ingredients are on the inventory  No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

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

Revision Date	06/07/2023
Initial Date	07/07/2023

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
1.2	06/07/2023	Toxicological information - Acute Health (eye), Physical and chemical properties - Appearance, CAS Number, Toxicological information - Chronic Health, Hazards identification - Classification, Disposal considerations - Disposal, Firefighting measures - Fire Fighter (fire/explosion hazard), Composition / information on ingredients - Ingredients, Korean MSDS Number, Exposure controls / personal protection - Personal Protection (hands/feet), Identification of the substance / mixture and of the company / undertaking - Supplier Information, Identification of the substance / mixture and of the company / undertaking - Synonyms

#### 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

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and

Classification Procedure

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amendments	
Skin Corrosion/Irritation Category 1B, H314	Expert judgement
Corrosive to Metals Category 1, H290	On basis of test data
Serious Eye Damage/Eye Irritation Category 1, H318	Calculation method
Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3 , H335	Calculation method
Sensitisation (Skin) Category 1, H317	Calculation method

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