

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

1.1 Product identifiers

Product name: 4-(Bromomethyl)-7-methoxycoumarin
 CAS-No.: 35231-44-8

EC number: 252-448-3
 Product Code: GEO-00500

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet:

Georganics Ltd., Koreničova 1, 811 03 Bratislava, Slovak Republic
 Phone Number: +421 33 6403132, E-mail address: georganics@georganics.sk

1.4 Emergency telephone number: National Toxicological Information Centre, Tel: +421-2-54774166, Mob: +421 911 166 066

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CPL)

Acute toxicity, Oral (Category 4), H302
 Skin irritation (Category 2), H315
 Eye irritation (Category 2), H319
 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

2.1.2 Additional information: For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Hazard pictogram:



Signal word:
Warning

Hazard statements:

H302-Harmful if swallowed.
 H315-Causes skin irritation.
 H319-Causes serious eye irritation.
 H335-May cause respiratory irritation.

Precautionary statements:

P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
 P280-Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312-IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P302+P352-IF ON SKIN: Wash with plenty of soap and water.
 P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard information (EU): Not applicable

2.3 Other hazards

Lachrymator.
 This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

| Identification numbers | Substance name | Concentration | Classification according to Regulation (EC) No 1272/2008 | SCL / M-factor / ATE |
|----------------------------------|-----------------------------------|---------------|--|----------------------|
| CAS: 35231-44-8 EC: 252-448-3 | 4-(Bromomethyl)-7-methoxycoumarin | <= 100% | H302;H315;H319;H335 | - |

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5 - FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: -

5.2 Special hazards arising from the substance or mixture - During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

5.3 Advice for firefighters - Wear self-contained breathing apparatus and protective clothing to prevent contact with skin/eyes.

5.4 Further information - Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures - Wear protective equipment. Ensure adequate ventilation. Keep unprotected persons away. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash spill site after material pickup is complete.

6.2 Environmental precautions - Prevent further leakage or spillage if safe to do so. Do not let this chemical enter the environment.

6.3 Methods and materials for containment and cleaning up - Spilled product should be covered with suitable (non-flammable) absorbing material. Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation

6.4 Reference to other sections - See Section 7 for information on safe handling. See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling - For precautions see section 2.2.

Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Ensure adequate ventilation. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities - Store in a dry, cool and well-ventilated place. Keep container closed when not in use. See Section 10 for stability and reactivity information. Light sensitive.

7.3 Specific end use(s) - No further relevant information available

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters****8.2 Exposure controls**

Engineering Controls: Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels. Safety shower and eye bath.

Personal Protective Equipment

Eye and face protection: Wear chemical safety glasses.

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

Respiratory protection: Wear appropriate protective mask with a filter against organic vapors.

Thermal hazard: No data available

Environmental exposure controls: Do not let product enter drains.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

| | | | |
|---|--------------------|---|-------------------|
| Physical state: | Powder | Decomposition temperature: | No data available |
| Color: | Off-white to cream | pH: | No data available |
| Odor: | No data available | Kinematic viscosity: | No data available |
| Freezing/Melting Point: | 213-215 °C | Solubility: | No data available |
| Boiling Point: | No data available | Partition coefficient n-octanol/water (log value): | No data available |
| Flammability: | No data available | Vapor pressure: | No data available |
| Lower and upper explosion limit: | No data available | Density and/or relative density: | No data available |
| Flash Point: | No data available | Relative vapor density: | No data available |
| Auto-ignition temperature: | No data available | Particle characteristics: | No data available |

9.2 Other safety information - No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity - No data available

10.2 Chemical stability - The product is chemically stable under standard ambient conditions (room temperature)

10.3 Possibility of hazardous reactions - No data available

10.4 Conditions to avoid - Incompatible products, light sensitive

10.5 Incompatible materials - Strong oxidizing agents

10.6 Hazardous decomposition products - Carbon oxides, hydrogen bromide gas

SECTION 11 - TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity - No data available

Skin irritation or corrosion - Causes skin irritation

Serious eye damage / irritation - Causes serious eye irritation.

Respiratory or skin sensitization - No data available

Germ cell mutagenicity - No data available

Carcinogenicity - No data available

Reproductive toxicity - No data available

Specific target organ system toxicity (STOT) - repeated exposure: No data available

Specific target organ system toxicity (STOT) - single exposure: No data available

11.2 Additional Information - To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties cannot be excluded. This substance should be handled with particular care.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity - No data available

12.2 Persistence and degradability - No data available

12.3 Bioaccumulative potential - No data available

12.4 Mobility in soil - No data available

12.5 Results of PBT and vPvB assessment - This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties - No data available

12.7 Other adverse effects - No data available

12.8 Additional information - No data available

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. The product must not be disposed of with municipal waste.

Contaminated packaging

Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

14.1 UN number: ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name:

ADR/RID: Not dangerous good

IMDG: Not dangerous good

IATA: Not dangerous good

14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4 Packing group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user: No data available

14.7 Maritime transport in bulk according to IMO instruments - No data available

SECTION 15 - REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 as amended. Environmental Protection Act 1990 as amended. Clean Air Act 1993 as amended. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

15.2 Chemical safety assessment - No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16 - OTHER INFORMATION

Key to abbreviations and acronyms used in the safety data sheet

| | |
|---|---|
| ATE - Acute Toxicity Estimate | Kow - octanol-water partition coefficient |
| ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road | LC50 - Lethal Concentration to 50 % of a test population |
| ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways | LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose) |
| CEN - European Committee for Standardisation | LE - Legal Entity |
| C&L - Classification and Labelling | LoW - List of Wastes (http://ec.europa.eu/environment/waste/framework/list.htm) |
| CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 | LR - Lead Registrant |
| CAS# - Chemical Abstracts Service number | M/I - Manufacturer / Importer |
| CMR - Carcinogen, Mutagen, or Reproductive Toxicant | MS - Member States |
| CSA - Chemical Safety Assessment | MSDS - Material Safety Data Sheet |
| CSR - Chemical Safety Report | OC - Operational Conditions |
| DNEL - Derived No Effect Level | OECD - Organization for Economic Co-operation and Development |
| DPD - Dangerous Preparations Directive 1999/45/EC | OEL - Occupational Exposure Limit |
| DSD - Dangerous Substances Directive 67/548/EEC | OJ - Official Journal |
| DU - Downstream User | OR - Only Representative |
| EC - European Community | OSHA - European Agency for Safety and Health at work |
| ECHA - European Chemicals Agency | PBT - Persistent, Bioaccumulative and Toxic substance |
| EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS) | PEC - Predicted Effect Concentration |
| EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway) | PNEC(s) - Predicted No Effect Concentration(s) |
| EEC - European Economic Community | PPE - Personal Protection Equipment |
| EINECS - European Inventory of Existing Commercial Substances | (Q)SAR - Qualitative Structure Activity Relationship |
| ELINCS - European List of notified Chemical Substances | REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| EN - European Standard | RID - Regulations concerning the International Carriage of Dangerous Goods by Rail |
| EQS - Environmental Quality Standard | RIP - REACH Implementation Project |
| EU - European Union | RMM - Risk Management Measure |
| Euphrac - European Phrase Catalogue | SCBA - Self-Contained Breathing Apparatus |
| EWC - European Waste Catalogue (replaced by LoW – see below) | SDS - Safety data sheet |
| GES - Generic Exposure Scenario | SIEF - Substance Information Exchange Forum |
| GHS - Globally Harmonized System | SME - Small and Medium sized Enterprises |
| IATA - International Air Transport Association | STOT - Specific Target Organ Toxicity |
| ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air | (STOT) RE - Repeated Exposure |
| IMDG - International Maritime Dangerous Goods | (STOT) SE - Single Exposure |
| IMSBC - International Maritime Solid Bulk Cargoes | SVHC - Substances of Very High Concern |
| IT - Information Technology | UFI - Unique Formula Identifier |
| IUCLID - International Uniform Chemical Information Database | UN - United Nations |
| IUPAC - International Union for Pure Applied Chemistry | vPvB - Very Persistent and Very Bioaccumulative |
| JRC - Joint Research Centre | |

The information contained in the SDS are compiled according to the present knowledge of the manufacturer. It does not represent any guarantee of the properties of the product. SDS shall be used only as a guide. Georganics Ltd. is not liable for damages incurred in the handling or contact with chemicals.