

SAFETY DATA SHEET

| Version: | 1.1 |
|-----------------------|----------|
| Revision Date: | 03.08.15 |
| Print Date | 03.08.15 |

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

1.1 Product identifiers

| Product Number: | B0239 |
|------------------|---|
| Product name: | (+)-Bicuculline |
| CAS Registry Nr: | 485-49-4 |
| | A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. |

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 Company

| Company: | Chemodex AG |
|----------|--------------------------|
| | CH - 9000 St. Gallen |
| | Switzerland, Europe |
| | Tel: +41 71 244 48 25 |
| | Fax: +41 71 244 48 26 |
| | Email: info@chemodex.com |

1.4 Emergency telephone number

| Tox Zentrum CH: | +41 44 251 51 51 |
|-----------------|------------------|
|-----------------|------------------|

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

| Acute toxicity, Oral (Category 1) | H300 |
|---|------|
| Acute toxicity, Dermal (Category 3) | H311 |
| Chronic aquatic toxicity (Category 1), | H410 |
| Acute toxicity, Inhalation (Category 3) | H331 |
| Acute aquatic toxicity (Category 1) | H400 |

2.2 GHS Label elements, including precautionary statements



Signal word

Danger

Hazard statement(s)

| H300 | Fatal if swallowed |
|-------------|---|
| H311 + H331 | Toxic in contact with skin or if inhaled |
| H410 | Very toxic to aquatic life with long lasting effects. |

Precautionary statement(s)

| P261 | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray |
|-------------|--|
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ protective clothing. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304 + P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position |
| | comfortable for breathing. |
| P312 | Call a POISON CENTER or doctor/ physician if you feel unwell. |
| P322 | Specific measures (see supplemental first aid instructions on this label). |
| P330 | Rinse mouth. |
| P361 | Remove/Take off immediately all contaminated clothing. |
| P363 | Wash contaminated clothing before reuse. |
| P391 | Collect spillage. |
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |
| | |

| Supplemental | |
|--------------------|------|
| Hazard Statements: | none |

SECTION 3: Composition/information on ingredients

| 3.1 Substances | | |
|-------------------|---|--|
| Synonyms: | (6R)-6-[(5S)-6-Methyl-5,6,7,8-tetrahydro[1,3]dioxolo[4,5-g]isoquinolin-5- yl]furo[3,4-e][1,3]benzodioxol-8(6H)-one | |
| Mol. Formula: | C20H17NO6 | |
| Mol. Weight: | 367.35 g/mol | |
| CAS Registry No.: | 485-49-4 | |

| Component | Classification | Concentration |
|-----------------|--|---------------|
| (+)-Bicuculline | Acute Tox. 1; Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 1; H300, H311 + H331, H410 | 90 - 100 % |

SECTION 4: First aid measures

General advice

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

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx)

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Air sensitive. Light sensitive. Keep in a dry place.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Appearance: | Off-white to yellow powder. |
|-------------|-----------------------------|
| | |

| Odour: | |
|--|------------------------|
| | No data available |
| Odour Threshold: | No data available |
| pH: | No data available |
| Melting point/freezing point: | 193-197 ℃ |
| Boiling point | No data available |
| Flash point: | No data available |
| Evaporation rate: | No data available |
| Flammability (solid, gas): | No data available |
| Upper/lower flammability or explosive limits: | No data available |
| Vapour pressure: | No data available |
| Vapour density: | No data available |
| Relative density: | |
| Solubility: | Soluble in chloroform. |
| Partition coefficient (n- octanol/water): | log Pow: 2.105 |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| Viscosity: | No data available |
| Explosive properties: | No data available |
| Oxidizing properties: | No data available |

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable for at least 2 years under recommended storage conditions.

Possibility of hazardous reactions

No data available.

Conditions to avoid Light.

Materials to avoid Strong oxidizing agents, Strong bases.

Hazardous decompositions products

Other decomposition products - no data available In the event of fire: see section 5

SECTION 11: Toxicological information

| Acute toxicity: | |
|------------------------------------|--------------------------------------|
| Inhalation: | no data available |
| Dermal: | no data available |
| LD50 | Intraperitoneal - mouse - 8.48 mg/kg |
| Skin corrosion/irritation: | No data available |
| Serious eye damage/eye irritation: | No data available |
| Respiratory or skin sensitisation: | No data available |
| Germ cell mutagenicity: | No data available |

Carcinogenicity

| IARC: | No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. | | |
|--------------------------------|---|---|--|
| ACGIH: | No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH. | | |
| NTP: | No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP. | | |
| OSHA: | No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA. | | |
| Reproductive Teratogenicity | - | No data available No data available | |
| | t organ toxicity- | New Jobs and State | |
| single exposu | re: t organ toxicity- | No data available | |
| repeated expo | • • | No data available | |
| Aspiration haz | | No data available | |
| • | ormation RTECS: | | |
| | | LV0909840 prolonged or repeated exposure can cause: | |
| Convulsions | | | |

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

No data available

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14. TRANSPORT INFORMATION

14.1 UN number and proper shipping name

DOT (US)

| UN number: UN1544 | Class: 6.1 | Packing group: II |
|-----------------------|--|-------------------|
| Proper shipping name: | Alkaloids, solid, n.o.s. (Bicuculline) | |
| Environmental hazards | No data available | |

IMDG

| UN number: UN1544 | Class: 6.1 | Packing group: II |
|-----------------------|----------------------|--------------------|
| Proper shipping name: | ALKALOIDS, SOLID, N. | O.S. (Bicuculline) |
| Environmental hazards | No data available | |

IATA

| UN number: UN1544 | Class: 6.1 | Packing group: II |
|-----------------------|--|-------------------|
| Proper shipping name: | Alkaloids, solid, n.o.s. (Bicuculline) | |
| Environmental hazards | No data available | |

14.6 Special precautions for user

No data available

Further information

No data available

SECTION 15: REGULATORY INFORMATION

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

No data available

15.2 Chemical Safety Assessment

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Further information

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