according to UK REACH Regulation

(+)-Flubatine Standard

| | (·)-i iubatine Standa | | |
|--|---|-------------------------------|-------------|
| Revision date: 10.05.2022 | Product code: 3355 | | Page 1 of 6 |
| SECTION 1: Identification of the | substance/mixture and of the com | pany/undertaking | |
| <u>1.1. Product identifier</u> (+)-Flubatine Standard | | | |
| Further trade names (1S,5R,6R)-6-(6-Fluoro-pyridin- | -3-yl)-8-aza-bicyclo[3.2.1]octane | | |
| Synonymes: ABX064; (+)-Flubatine; (+)-NCl | FHEB; (+)-exo-6-(6-fluoro-pyridin-3-yl)-8 | -aza-bicyclo[3.2.1]octane | |
| 1.2. Relevant identified uses of the s | ubstance or mixture and uses advised | <u>l against</u> | |
| Use of the substance/mixture | | | |
| Reference Standard for (+)-[18 | F]Flubatine | | |
| 1.3. Details of the supplier of the saf | etv data sheet | | |
| Company name: | ABX advanced biochemical compour Biomedizinische Forschungsreagenz | | |
| Street: | Heinrich-Gläser-Straße 10-14 | | |
| Place: | 01454 Radeberg | | |
| Telephone: | +49 3528 4041 60 | Telefax: +49 3528 4041 65 | |
| e-mail: | info@abx.de | | |
| Contact person: | Dr. Christoph Meyer | Telephone: +49 3528 4041 8732 | |
| e-mail: | meyer@abx.de | | |
| Internet: | http://www.abx.de | | |
| 1.4. Emergency telephone | +49 3528 4041 60 | | |
| <u>number:</u> | | | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Acute Tox. 3; H301

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Signal word: Pictograms:



Hazard statements

H301

Toxic if swallowed.

Precautionary statements

| oouullonaly olulo | |
|-------------------|--|
| P402+P404 | Store in a dry place. Store in a closed container. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. |
| P315 | Get immediate medical advice/attention. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P270 | Do not eat, drink or smoke when using this product. |
| | |

2.3. Other hazards

Warning - substance not yet tested completely.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

| (1S,5R,6R)-6-(6-Fluoro-pyridin-3-yl)-8-aza-bicyclo[3.2.1]octa | | | |
|---|-----------|--|--|
| Sum formula: | C12H15FN2 | | |
| Molecular weight: | 206.26 | | |

Hazardous components

| CAS No | Chemical name | | | Quantity |
|--------|------------------------------------|----------|----------|--------------|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| | (+)-Flubatine Standard | | | 95 - < 100 % |
| | Acute Tox. 3; H301 | | | |

Full text of H and EUH statements: see section 16.

| Specific Conc | Specific Conc. Limits, M-factors and ATE | | |
|---------------|--|------------------------|--------------|
| CAS No | lo EC No Chemical name | | Quantity |
| | Specific Conc. Limits, M-factors and ATE | | |
| | | (+)-Flubatine Standard | 95 - < 100 % |
| | oral: ATE = 100 |) mg/kg | |

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

If major quantity of dust is swallowed or inhaled, immediately drink:

After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with: Water. Change contaminated clothing.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray. Foam. Extinguishing powder. Carbon dioxide (CO2).

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide Nitrogen oxides (NOx).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

according to UK REACH Regulation

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6.1. Personal precautions, protective equipment and emergency procedures

General advice

Wear personal protection equipment. Provide adequate ventilation. Avoid dust formation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not breathe dust. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Advice on general occupational hygiene

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. Protect skin by using skin protective cream.

Further information on handling

When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container dry. Keep container tightly closed.

Further information on storage conditions

storage temperature: of °C: -15 up to °C: -25 Protect against: Light. Store under (Gas): argon. Nitrogen.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection

Eye protection: Tightly sealed safety glasses.

Hand protection

Tested protective gloves are to be worn: Single-use gloves. NBR (Nitrile rubber).

Skin protection

Body protection: Lab apron. Chemical resistant safety shoes.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state: | solid | |
|-----------------|----------|------------|
| Colour: | whitish, | light grey |

according to UK REACH Regulation

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Changes in the physical state

Solubility in other solvents

ethyl acetate., Chloroform, Methanol., ACN

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

Light.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Nitrogen oxides (NOx). Fluorines-carbon-hydrogens.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

No information available.

| CAS No | Chemical name | | | | |
|--------|------------------------|------------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| | (+)-Flubatine Standard | | | | |
| | oral | ATE 100 mg/kg | | | |

Carcinogenic/mutagenic/toxic effects for reproduction

No information available.

Information on likely routes of exposure

Toxic if swallowed.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

Further information

Toxicological data are not available.

SECTION 12: Ecological information

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

according to UK REACH Regulation

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| discarded chemicals; disc | 160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste | | | | |
| | /ISE SPECIFIED IN THE LIST; gases in pressure containers and carded organic chemicals consisting of or containing hazardous /aste | | | | |
| 150110 WASTE PACKAGING; A PROTECTIVE CLOTHIN collected municipal packa | List of Wastes Code - contaminated packaging 150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste | | | | |
| Contaminated packaging Non-contaminated packages may be substance itself. | recycled. Handle contaminated packages in the same way as the | | | | |
| SECTION 14: Transport information | | | | | |
| Land transport (ADR/RID) <u>14.1. UN number or ID number:</u> <u>14.2. UN proper shipping name:</u> <u>14.3. Transport hazard class(es):</u> <u>14.4. Packing group:</u> Hazard label: Inland waterways transport (ADN) <u>14.1. UN number or ID number:</u> <u>14.2. UN proper shipping name:</u> <u>14.3. Transport hazard class(es):</u> <u>14.4. Packing group:</u> Hazard label: Marine transport (IMDG) <u>14.1. UN number or ID number:</u> <u>14.2. UN proper shipping name:</u> | UN 2811 Toxic solid, organic, n.o.s. ((+)-Flubatine) 6.1 III 6.1 UN 2811 Toxic solid, organic, n.o.s. ((+)-Flubatine) 6.1 III 6.1 UN 2811 Toxic solid, organic, n.o.s. ((+)-Flubatine) | | | | |
| <u>14.2. ON proper snipping name:</u> <u>14.3. Transport hazard class(es):</u> <u>14.4. Packing group:</u> Hazard label: | 6.1 6.1 6.1 | | | | |
| Air transport (ICAO-TI/IATA-DGR) <u>14.1. UN number or ID number:</u> <u>14.2. UN proper shipping name:</u> <u>14.3. Transport hazard class(es):</u> <u>14.4. Packing group:</u> Hazard label: <u>14.5. Environmental hazards</u> | UN 2811 Toxic solid, organic, n.o.s. ((+)-Flubatine) 6.1 III 6.1 | | | | |
| ENVIRONMENTALLY HAZARDOUS: | No | | | | |
| SECTION 15: Regulatory information | | | | | |
| | ulations/legislation specific for the substance or mixture | | | | |

National regulatory information

Water hazard class (D):

3 - highly hazardous to water

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SECTION 16: Other information

Relevant H and EUH statements (number and full text) Toxic if swallowed.

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