

# Flurbiprofen for peak identification

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 18/06/2025 Version: 1.0

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

#### 1.1. Product identifier

Product form : Substance  
Substance name : Flurbiprofen for peak identification  
Chemical name : Flurbiprofen  
EC-No. : 225-827-6  
CAS-No. : 5104-49-4  
Product code : 202500466

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

##### Relevant identified uses

Use of the substance/mixture : Scientific research and development  
Technical testing and analysis  
For professional use only  
Function or use category : Laboratory chemicals

##### Uses advised against

Restrictions on use : Not for food, drug or home use

#### 1.3. Details of the supplier of the safety data sheet

European Directorate for the Quality of Medicines & Healthcare  
EDQM, Council of Europe  
7, Allée Kastner, CS30026  
F 67081 Strasbourg  
France  
T +33(0)388412035, F +33(0)388412771  
[sds@edqm.eu](mailto:sds@edqm.eu), [www.edqm.eu](http://www.edqm.eu)

#### 1.4. Emergency telephone number

Emergency number : +33(0)390215608

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 3 H301  
Serious eye damage/eye irritation, Category 2 H319  
Reproductive toxicity, Category 1B H360  
Specific target organ toxicity – Repeated exposure, Category 1 H372  
Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411

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

##### Adverse physicochemical, human health and environmental effects

Toxic if swallowed. Toxic to aquatic life with long lasting effects. May damage fertility or the unborn child. Causes serious eye irritation. Causes damage to organs through prolonged or repeated exposure.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS06



GHS08



GHS09

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|                                |   |
|--------------------------------|---|
| Signal word (CLP)              | : Danger  |
| Hazard statements (CLP)        | : H301 - Toxic if swallowed.<br>H319 - Causes serious eye irritation.<br>H360 - May damage fertility or the unborn child.<br>H372 - Causes damage to organs (digestive system, cardiovascular system, urinary system) through prolonged or repeated exposure.<br>H411 - Toxic to aquatic life with long lasting effects.  |
| Precautionary statements (CLP) | : P201 - Obtain special instructions before use.<br>P202 - Do not handle until all safety precautions have been read and understood.<br>P260 - Do not breathe dust/fume/gas/mist/vapours/spray.<br>P264 - Wash hands, forearms and face thoroughly after handling.<br>P270 - Do not eat, drink or smoke when using this product.<br>P273 - Avoid release to the environment.<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.<br>P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P314 - Get medical advice/attention if you feel unwell.<br>P321 - Specific treatment (see supplemental first aid instruction on this label).<br>P330 - Rinse mouth.<br>P337+P313 - If eye irritation persists: Get medical advice/attention.<br>P391 - Collect spillage.<br>P405 - Store locked up.<br>P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |

Labelling according to: Exemption for inner packaging where the contents do not exceed 10ml.

Hazard pictograms (CLP)



### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

| Name         | Product identifier                      | %     | Classification according to Regulation (EC) No. 1272/2008 [CLP]  |
|--------------|---|-------|--|
| Flurbiprofen | CAS-No.: 5104-49-4<br>EC-No.: 225-827-6 | ≤ 100 | Acute Tox. 3 (Oral), H301 (ATE=117 mg/kg bodyweight)<br>Eye Irrit. 2, H319<br>Repr. 1B, H360<br>STOT RE 1, H372<br>Aquatic Chronic 2, H411 |

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                     |   |
|-------------------------------------|---|
| First-aid measures general          | : In all cases of doubt, or when symptoms persist, seek medical attention.  |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest. If the person feels unwell : Get medical advice/attention. |

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|                                       |  |
|---------------------------------------|--|
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.  |
| First-aid measures after eye contact  | : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists. |
| First-aid measures after ingestion    | : Rinse mouth out with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.  |

### 4.2. Most important symptoms and effects, both acute and delayed

|                                    |   |
|------------------------------------|---|
| Symptoms/effects after eye contact | : Causes serious eye irritation. Redness, pain. |
|------------------------------------|---|

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                |   |
|--------------------------------|---|
| Suitable extinguishing media   | : Use extinguishing media appropriate for surrounding fire. Carbon dioxide. Water spray. Dry powder. Extinguishing blanket. |
| Unsuitable extinguishing media | : Do not use a heavy water stream.  |

### 5.2. Special hazards arising from the substance or mixture

|  |  |
|--|--|
| Hazardous decomposition products in case of fire | : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. Toxic fumes may be released. |
|--|--|

### 5.3. Advice for firefighters

|                                |  |
|--------------------------------|--|
| Firefighting instructions      | : Prevent fire fighting water from entering the environment.   |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

|                                    |   |
|------------------------------------|---|
| General measures                   | : Avoid contact with skin, eyes and clothing.   |
| <b>For non-emergency personnel</b> |   |
| Emergency procedures               | : Evacuate unnecessary personnel.   |
| <b>For emergency responders</b>    |   |
| Protective equipment               | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

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

|                         |   |
|-------------------------|---|
| For containment         | : Absorb with an inert material and place in an appropriate waste disposal container.     |
| Methods for cleaning up | : Clean contaminated surfaces with an excess of water. Clean with the help of detergents. |

### 6.4. Reference to other sections

See Section 13 for disposal information.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

|                                   |  |
|-----------------------------------|--|
| Additional hazards when processed | : Do not expose pregnant or breastfeeding women.   |
| Precautions for safe handling     | : Avoid all unnecessary exposure. Ensure good ventilation of the work station.   |
| Hygiene measures                  | : Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands before work breaks and after finishing work. |

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

|                     |   |
|---------------------|---|
| Storage conditions  | : Store in a well-ventilated place. Keep container tightly closed. Keep away from heat and direct sunlight. |
| Packaging materials | : Keep in original containers.  |

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

##### Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station. Both local exhaust and general room ventilation are usually required. Material should be handled in a laboratory hood whenever possible.

##### Personal protection equipment

##### Eye and face protection

##### Eye protection:

Wear eye protection. Safety glasses with side shields. (EN 166)

##### Skin protection

##### Skin and body protection:

Wear suitable protective clothing. Laboratory use : Lab coat. (EN 13034)

##### Hand protection:

Wear suitable gloves. Chemically resistant protective gloves. (EN 374)

##### Respiratory protection

##### Respiratory protection:

In case of dust formation use respirator with filter: P3

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|                       |                        |
|-----------------------|------------------------|
| Physical state        | : Solid                |
| Colour                | : white, almost white. |
| Appearance            | : Crystalline powder.  |
| Molecular mass        | : 244.3 g/mol          |
| Odour                 | : Not available        |
| Odour threshold       | : Not available        |
| Melting point         | : ≈ 110 °C             |
| Freezing point        | : Not available        |
| Boiling point         | : Not available        |
| Flammability          | : Not available        |
| Lower explosion limit | : Not applicable       |

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|   |                    |
|---|--------------------|
| Upper explosion limit                           | : Not applicable   |
| Flash point                                     | : Not applicable   |
| Auto-ignition temperature                       | : Not applicable   |
| Decomposition temperature                       | : Not available    |
| pH  | : Not available    |
| pH solution                                     | : Not available    |
| Viscosity, kinematic                            | : Not applicable   |
| Solubility                                      | : Water: < 0.1 g/l |
| Partition coefficient n-octanol/water (Log Kow) | : $\geq 4$         |
| Vapour pressure                                 | : Not available    |
| Vapour pressure at 50°C                         | : Not available    |
| Density   | : Not available    |
| Relative density                                | : Not available    |
| Relative vapour density at 20°C                 | : Not applicable   |
| Particle size                                   | : Not available    |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

No additional information available

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

|                             |                                 |
|-----------------------------|---------------------------------|
| Acute toxicity (oral)       | : Toxic if swallowed.           |
| Acute toxicity (dermal)     | : Not classified (Lack of data) |
| Acute toxicity (inhalation) | : Not classified (Lack of data) |

#### Flurbiprofen (5104-49-4)

|               |           |
|---------------|-----------|
| LD50 oral rat | 117 mg/kg |
|---------------|-----------|

|                                   |   |
|-----------------------------------|---|
| Skin corrosion/irritation         | : Not classified (Lack of data)   |
| Serious eye damage/irritation     | : Causes serious eye irritation.  |
| Respiratory or skin sensitisation | : Not classified (Lack of data)   |
| Germ cell mutagenicity            | : Not classified (Lack of data)   |
| Carcinogenicity                   | : Not classified (Based on available data, the classification criteria are not met) |
| Reproductive toxicity             | : May damage fertility or the unborn child.   |
| STOT-single exposure              | : Not classified (Lack of data)   |

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|                        |   |
|------------------------|---|
| STOT-repeated exposure | : Causes damage to organs (digestive system, cardiovascular system, urinary system) through prolonged or repeated exposure. |
| Aspiration hazard      | : Not classified (Lack of data)   |

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

|   |   |
|---|---|
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified (Based on available data, the classification criteria are not met) |
| Hazardous to the aquatic environment, long-term (chronic) | : Toxic to aquatic life with long lasting effects.                                  |

#### Flurbiprofen (5104-49-4)

|                      |  |
|----------------------|--|
| EC50 - Crustacea [1] | 5.89 mg/l (48 Hours, Daphnia magna (Water flea)) (OECD 202 method) |
|----------------------|--|

### 12.2. Persistence and degradability

#### Flurbiprofen (5104-49-4)

|                               |                        |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

### 12.3. Bioaccumulative potential

#### Flurbiprofen (5104-49-4)

|   |     |
|---|-----|
| Partition coefficient n-octanol/water (Log Kow) | ≥ 4 |
|---|-----|

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

No additional information available

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

| ADR                                 | IMDG    | IATA    |
|-------------------------------------|---------|---------|
| <b>14.1. UN number or ID number</b> |         |         |
| UN 2811                             | UN 2811 | UN 2811 |

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| ADR  | IMDG  | IATA  |
|--|---|---|
| <b>14.2. UN proper shipping name</b>   |   |   |
| TOXIC SOLID, ORGANIC, N.O.S.   | TOXIC SOLID, ORGANIC, N.O.S.  | Toxic solid, organic, n.o.s.  |
| <b>Transport document description</b>  |   |   |
| UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III, (E), ENVIRONMENTALLY HAZARDOUS | UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS                    | UN 2811 Toxic solid, organic, n.o.s., 6.1, III, ENVIRONMENTALLY HAZARDOUS |
| <b>14.3. Transport hazard class(es)</b>  |   |   |
| 6.1  | 6.1   | 6.1   |
|  |   |   |
| <b>14.4. Packing group</b>   |   |   |
| III  | III   | III   |
| <b>14.5. Environmental hazards</b>   |   |   |
| Dangerous for the environment: Yes   | Dangerous for the environment: Yes<br>Marine pollutant: Yes<br>EmS-No. (Fire): F-A<br>EmS-No. (Spillage): S-A | Dangerous for the environment: Yes  |
| No supplementary information available   |   |   |

### 14.6. Special precautions for user

#### Overland transport

|   |                           |
|---|---------------------------|
| Classification code (ADR)   | : T2                      |
| Special provisions (ADR)  | : 274, 614                |
| Limited quantities (ADR)  | : 5kg                     |
| Excepted quantities (ADR)   | : E1                      |
| Packing instructions (ADR)  | : P002, IBC08, LP02, R001 |
| Special packing provisions (ADR)  | : B3                      |
| Mixed packing provisions (ADR)  | : MP10                    |
| Portable tank and bulk container instructions (ADR)                     | : T1                      |
| Portable tank and bulk container special provisions (ADR)               | : TP33                    |
| Tank code (ADR)   | : SGAH, L4BH              |
| Tank special provisions (ADR)   | : TU15, TE19              |
| Vehicle for tank carriage   | : AT                      |
| Transport category (ADR)  | : 2                       |
| Special provisions for carriage - Bulk (ADR)                            | : VC1, VC2, AP7           |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13, CV28              |
| Special provisions for carriage - Operation (ADR)                       | : S9                      |
| Hazard identification number (Kemler No.)                               | : 60                      |
| Orange plates   | :                         |

Tunnel restriction code (ADR) : E

#### Transport by sea

|                            |            |
|----------------------------|------------|
| Special provisions (IMDG)  | : 223, 274 |
| Limited quantities (IMDG)  | : 5 kg     |
| Excepted quantities (IMDG) | : E1       |

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|                                    |   |
|------------------------------------|---|
| Packing instructions (IMDG)        | : P002  |
| IBC packing instructions (IMDG)    | : IBC08   |
| IBC special provisions (IMDG)      | : B3  |
| Tank instructions (IMDG)           | : T1  |
| Tank special provisions (IMDG)     | : TP33  |
| Stowage category (IMDG)            | : A   |
| Properties and observations (IMDG) | : Toxic if swallowed, by skin contact or by inhalation. |

### Air transport

|  |          |
|--|----------|
| PCA Excepted quantities (IATA)               | : E1     |
| PCA Limited quantities (IATA)                | : Y645   |
| PCA limited quantity max net quantity (IATA) | : 10kg   |
| PCA packing instructions (IATA)              | : 670    |
| PCA max net quantity (IATA)                  | : 100kg  |
| CAO packing instructions (IATA)              | : 677    |
| CAO max net quantity (IATA)                  | : 200kg  |
| Special provisions (IATA)                    | : A3, A5 |
| ERG code (IATA)                              | : 6L     |

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### EU-Regulations

##### REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

##### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

##### Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

##### Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

### Full text of H- and EUH-statements:

|                     |   |
|---------------------|---|
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3                                 |
| Aquatic Chronic 2   | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| Eye Irrit. 2        | Serious eye damage/eye irritation, Category 2                     |

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| Full text of H- and EUH-statements: |   |
|-------------------------------------|---|
| H301                                | Toxic if swallowed.   |
| H319                                | Causes serious eye irritation.  |
| H360                                | May damage fertility or the unborn child.   |
| H372                                | Causes damage to organs (digestive system, cardiovascular system, urinary system) through prolonged or repeated exposure. |
| H411                                | Toxic to aquatic life with long lasting effects.  |
| Repr. 1B                            | Reproductive toxicity, Category 1B  |
| STOT RE 1                           | Specific target organ toxicity – Repeated exposure, Category 1  |

Safety Data Sheet (SDS), EU

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