| SAFETY DATA SHEETS                            |  |
|---|--|
| According to Globally Harmonized System       | of Classification and Labelling of Chemicals (GHS) -               |
| Sixth revised edition                         |  |
| Version: 1.0                                  |  |
| Creation Date: Aug 15, 2017                   |  |
| Revision Date: Aug 15, 2017                   |  |
| 1.Identification                              |  |
| 1.1GHS Product identifier                     |  |
| Product name                                  | flumethasone   |
| 1.20ther means of identification              |  |
| Product number                                | -  |
| Other names                                   | flumetasone  |
| 1.3Recommended use of the chemical and re     | estrictions on use   |
| Identified uses                               | For industry use only.   |
| Uses advised against                          | no data available  |
| 1.4Supplier's details                         |  |
| Company                                       | MOLBASE (Shanghai) Biotechnology Co., Ltd.                         |
| Address                                       | Floor 5th, Building 12, No. 1001 North Qinzhou Road,Xuhui District |
| Telephone                                     | 86(21)54365062   |
| Fax   | 86(21)54365166   |
| 1.5Emergency phone number                     |  |
| Emergency phone number                        | 86(21)54365062   |
| Service hours                                 | Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 ho       |
| 2.Hazard identification                       |  |
| 2.1Classification of the substance or mixture |  |
| Reproductive toxicity, Category 1B            |  |
| 2.2GHS label elements, including precautiona  | ary statements   |

Pictogram(s)



| Signal word                | Warning  |
|----------------------------|--|
| Hazard statement(s)        | H360 May damage fertility or the unborn child                      |
| Precautionary statement(s) |  |
| Prevention                 | P201 Obtain special instructions before use.                       |
|                            | P202 Do not handle until all safety precautions have been read and |
|                            | P280 Wear protective gloves/protective clothing/eye protection/fa  |
| Response                   | P308+P313 IF exposed or concerned: Get medical advice/ attentior   |
| Storage                    | P405 Store locked up.  |
| Disposal                   | P501 Dispose of contents/container to                              |
|                            |  |

2.30ther hazards which do not result in classification

none

3. Composition/information on ingredients

3.1Substances

| Chemical name | Common names and synonyms | CAS number | EC numb |
|---------------|---------------------------|------------|---------|
| flumethasone  | flumethasone              | 2135-17-3  | none    |

4.First-aid measures

4.1Description of necessary 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. 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

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

4.2Most important symptoms/effects, acute and delayed

no data available

4.3Indication of immediate medical attention and special treatment needed, if necessary

no data available

5.Fire-fighting measures

5.1Extinguishing media

Suitable extinguishing media

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

5.2Specific hazards arising from the chemical

no data available

5.3Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6.Accidental release measures

6.1Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. 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.

6.2Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7.Handling and storage

7.1Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

8.1Control parameters

Occupational Exposure limit values

no data available

**Biological limit values** 

no data available

8.2Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Respiratory protection** 

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

| Physical state   | White crystalline powder |  |  |  |
|--|--------------------------|--|--|--|
| Colour   | no data available        |  |  |  |
| Odour  | no data available        |  |  |  |
| Melting point/ freezing point                                    | 237-240                  |  |  |  |
| Boiling point or initial boiling point and 569.8 潞 C at 760 mmHg |                          |  |  |  |
| boiling range  |                          |  |  |  |
| Flammability   | no data available        |  |  |  |
| Lower and upper explosion limit                                  | /no data available       |  |  |  |
| flammability limit   |                          |  |  |  |
| Flash point  | 298.4                    |  |  |  |
| Auto-ignition temperature  | no data available        |  |  |  |
| Decomposition temperature  | no data available        |  |  |  |

pН no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water (logno data available value) Vapour pressure 2.33E-15mmHg at 25 掳 C 1.36 g/cm3 Density and/or relative density Relative vapour density no data available Particle characteristics no data available 10.Stability and reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions. 10.3Possibility of hazardous reactions no data available 10.4Conditions to avoid no data available 10.5Incompatible materials no data available 10.6Hazardous decomposition products no data available 11.Toxicological information Acute toxicity Oral: no data available Inhalation: no data available Dermal: no data available Skin corrosion/irritation no data available Serious eye damage/irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity no data available Reproductive toxicity no data available STOT-single exposure no data available STOT-repeated exposure no data available Aspiration hazard

| 12.Ecological information                          |   |            |
|--|---|------------|
| 12.1Toxicity                                       |   |            |
| Toxicity to fish: no data available                |   |            |
| Toxicity to daphnia and other aquatic invertebrat  | es: no data available                               |            |
| Toxicity to algae: no data available               |   |            |
| Toxicity to microorganisms: no data available      |   |            |
| 12.2Persistence and degradability                  |   |            |
| no data available                                  |   |            |
| 12.3Bioaccumulative potential                      |   |            |
| no data available                                  |   |            |
| 12.4Mobility in soil                               |   |            |
| no data available                                  |   |            |
| 12.50ther adverse effects                          |   |            |
| no data available                                  |   |            |
| 13. Disposal considerations                        |   |            |
| 13.1Disposal methods                               |   |            |
| Product  |   |            |
|  | to a licensed chemical destruction plant or by      |            |
|  | . Do not contaminate water, foodstuffs, feed or     |            |
| seed by storage or disposal. Do not discharge to s | sewer systems.                                      |            |
| Contaminated packaging                             |   |            |
|  | t) and offered for recycling or reconditioning.     |            |
|  | o make it unusable for other purposes and then      |            |
|  | ncineration with flue gas scrubbing is possible for |            |
| combustible packaging materials.                   |   |            |
| 14.Transport information                           |   |            |
| 14.1UN Number                                      |   |            |
| ADR/RID: no data available                         | IMDG: no data available                             | IATA: no d |
| 14.2UN Proper Shipping Name                        |   |            |
| ADR/RID: no data available                         |   |            |
| IMDG: no data available                            |   |            |
| IATA: no data available                            |   |            |
| 14.3Transport hazard class(es)                     |   |            |
| ADR/RID: no data available                         | IMDG: no data available                             | IATA: no d |
| 14.4Packing group, if applicable                   |   |            |
| ADR/RID: no data available                         | IMDG: no data available                             | IATA: no d |
| 14.5Environmental hazards                          |   |            |
| ADR/RID: no  | IMDG: no  | ΙΑΤΑ       |
| 14.6Special precautions for user                   |   |            |
| no data available                                  |   |            |
| 14.7Transport in bulk according to Annex II of MA  | ARPOL 73/78 and the IBC Code                        |            |
| no data available                                  |   |            |
| 15.Regulatory information                          |   |            |
|  |   |            |

no data available

15.1Safety, health and environmental regulations specific for the product in question

| 15.1Saf   | ety, health and environmental re   | guiations specif  | for the p    | roduct    | n question    |             |           |
|-----------|--|-------------------|--------------|-----------|---------------|-------------|-----------|
|           | Chemical name  | Common nan        | nes and sy   | ionyms    |               |             | CAS numb  |
|           | flumethasone   | flumethasone      | 9            |           |               |             | 2135-17-3 |
|           | European Inventory of Existing Commercial Chemical Substances (EINECS)   |                   |              |           |               |             |           |
|           | EC Inventory<br>United States Toxic Substances Control Act (TSCA) Inventory<br>China Catalog of Hazardous chemicals 2015<br>New Zealand Inventory of Chemicals (NZIoC)<br>Philippines Inventory of Chemicals and Chemical Substances (PICCS) |                   |              |           |               |             |           |
|           |  |                   |              |           |               |             |           |
|           |  |                   |              |           |               |             |           |
|           |  |                   |              |           |               |             |           |
|           |  |                   |              |           |               |             |           |
|           | Vietnam National Chemical Inventory  |                   |              |           |               |             |           |
|           | Chinese Chemical Inventory of  | Existing Chemic   | al Substan   | ces (Chir | na IECSC)     |             |           |
| 16.0the   | er information   |                   |              |           | ,             |             |           |
| Informa   | ation on revision  |                   |              |           |               |             |           |
|           | Creation Date  | Aug               | g 15, 2017   |           |               |             |           |
|           | Revision Date  | Aug               | g 15, 2017   |           |               |             |           |
| Abbrevi   | iations and acronyms   |                   |              |           |               |             |           |
| CAS: Ch   | emical Abstracts Service   |                   |              |           |               |             |           |
| ADR: Eu   | ropean Agreement concerning t  | he Internationa   | l Carriage   | of Dange  | erous Goods b | y Road      |           |
| RID: Reg  | gulation concerning the Internat   | ional Carriage o  | f Dangerou   | is Goods  | s by Rail     |             |           |
| IMDG: I   | nternational Maritime Dangerou   | ıs Goods          |              |           |               |             |           |
| IATA: In  | ternational Air Transportation As  | sociation         |              |           |               |             |           |
| TWA: Ti   | ime Weighted Average   |                   |              |           |               |             |           |
| STEL: Sł  | nort term exposure limit   |                   |              |           |               |             |           |
| LC50: Le  | ethal Concentration 50%  |                   |              |           |               |             |           |
| LD50: L   | ethal Dose 50%   |                   |              |           |               |             |           |
| EC50: E   | ffective Concentration 50%   |                   |              |           |               |             |           |
| Referen   | ices   |                   |              |           |               |             |           |
| IPCS      | - The International  | Chemical          | Safety       | Cards     | (ICSC),       | website:    |           |
| http://v  | www.ilo.org/dyn/icsc/showcard.   | home              |              |           |               |             |           |
| HSDB      | - Hazardous  | Substances        | Dat          | a         | Bank,         | website:    |           |
| https://  | /toxnet.nlm.nih.gov/newtoxnet/l  | nsdb.htm          |              |           |               |             |           |
| IARC - II | nternational Agency for Researcl   | n on Cancer, wel  | bsite: http: | //www.i   | iarc.fr/      |             |           |
| eChem     | Portal - The Global Portal to I  | nformation on     | Chemical     | Substan   | ices by OECE  | ), website: |           |
| http://v  | www.echemportal.org/echempo  | rtal/index?page   | ID=0&requ    | est_loca  | ale=en        |             |           |
| CAMEO     | Chemicals, website: http://cam   | eochemicals.noa   | aa.gov/sea   | rch/sim   | ole           |             |           |
| ChemID    | plus, website: http://chem.sis.n   | lm.nih.gov/cher   | nidplus/ch   | emidlite  | .jsp          |             |           |
| ERG -     | Emergency Response Guideb  | ook by U.S. [     | Departmer    | t of T    | ransportation | , website:  |           |
| http://v  | www.phmsa.dot.gov/hazmat/libi  | ary/erg           |              |           |               |             |           |
| Germar    | ny GESTIS-database   | on h              | nazard       | sub       | stance,       | website:    |           |
| http://v  | www.dguv.de/ifa/gestis/gestis-st   | offdatenbank/in   | idex-2.jsp   |           |               |             |           |
| ECHA -    | European Chemicals Agency, we  | bsite: https://ec | ha.europa    | .eu/      |               |             |           |
|           |  |                   |              |           |               |             |           |