



# Target Molecules

| Creation Date: | May 25, 2024 |
|----------------|--------------|
| Revision Date: | May 25, 2024 |

# According to the UN GHS revision 8

| 1.  | IDENTIFICATION  |   |
|-----|---|---|
| 1.1 | 1.1 GHS Product identifier  |   |
|     | Product name:   | Halofuginone hydrobromide   |
|     | Catalog Number:   | T3524   |
|     | CAS Number:   | 64924-67-0  |
| 1.2 | Other means of identifica   | tion  |
|     | Other names:  |   |
| 1.3 | Recommended use of the  | chemical and restrictions on use  |
|     | Identified uses:  | no data available   |
| 1.4 | 1.4 Supplier's details  |   |
|     | Company:  | Targetmol Chemicals Inc.  |
|     | Uses advised against:   | 36 Washington Street, Wellesley Hills, Massachusetts 02481 USA  |
|     | Tel/Fax:  | (781) 999-4286  |
| 1.5 | Emergency phone number  |   |
|     | Emergency phone number:   | 781-999-4286  |
|     | Service hours:  | Monday to Friday, 9am-5pm (Standard timezone:UTC/GMT -5hours).  |
| 2.  | HAZARD IDENTIFICATION   |   |
| 2.1 | Classification of the substance or mixture<br>Acute toxicity - Category 4, Oral |   |
|     |   |   |
| 2.2 | GHS label elements, including precautionary statements                          |   |
|     | Pictogram(s):   |   |
|     | Signal word:  | Warning   |
|     | Hazard statement(s):  | H302 Harmful if swallowed   |
|     | Precautionary statement(s):   |   |
|     | Prevention:   | P264 Wash thoroughly after handling.<br>P270 Do not eat, drink or smoke when using this product.  |
|     | Response:   | P301+P317 IF SWALLOWED: Get medical help.<br>P330 Rinse mouth.  |
|     | Storage:  | none  |
|     | Disposal:   | P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| 2.3 | Other hazards which do n  | ot resultin classification  |

## no data available

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

# 3.1 Substances

| Chemical name             | Common names and synonyms | CAS number | EC number |
|---------------------------|---------------------------|------------|-----------|
| Halofuginone hydrobromide | -                         | 64924-67-0 | -         |

## 4. FIRST-AID MEASURES

# 4.1 Description of necessary first-aid measures

## **General advice**

no data available

## If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a d°Ctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

## Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a d°Ctor.

#### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a d°Ctor.

#### **Following ingestion**

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a d°Ctor or Poison Control Center immediately.

## 4.2 Most important symptoms/effects, acute and delayed

no data available

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

no data available

## 5. FIRE-FIGHTING MEASURES

## 5.1 Extinguishing media

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

## 5.2 Specific hazards arising from the chemical

no data available

## 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

## 6.2 Environmental precautions

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

## 6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use sparkproof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

## 7. HANDLING AND STORAGE

# 7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

# 7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control parameters

**Occupational Exposure limit values** 

no data available

#### **Biological limit values**

no data available

## 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

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

#### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

#### **Skin protection**

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. 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**

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Thermal hazards

no data available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state   | solid                      |
|--|----------------------------|
| Color  | no data available          |
| Odour  | no data available          |
| Melting point/ freezing point                              | no data available          |
| Boilingpoint or initial boiling point<br>and boiling range | 595.8°C at 760 mmHg        |
| Flammability   | no data available          |
| Lower and upper explosion<br>limit/flammability limit      | no data available          |
| Flash point  | 314.1°C                    |
| Auto-ignition temperature                                  | no data available          |
| Decomposition temperature                                  | no data available          |
| рН   | no data available          |
| Kinematic viscosity  | no data available          |
| Solubility   | DMSO: 49.6 mg/mL (100 mM), |

# A DRUG SCREENING EXPERT

| <ul> <li>N-octanol-water partition<br/>coefficient</li> </ul> | no data available |
|---|-------------------|
| Vapour pressure   | no data available |
| Density and/ or relative density                              | no data available |
| Relative vapour density                                       | no data available |
| Particle characteristics                                      | no data available |
|   |                   |

# 10. STABILITY AND REACTIVITY

# 10.1 Reactivity

no data available

# 10.2 Chemical stability

no data available

# 10.3 Possibility of hazardous reactions

no data available

# 10.4 Conditions to avoid

no data available

# 10.5 Incompatible materials

no data available

# 10.6 Hazardous 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

no data available

## 12. ECOLOGICAL INFORMATION

## 12.1 Toxicity

Toxicity to fish: no data available Toxicity to daphnia and other aquatic invertebrates: no data available Toxicity to algae: no data available Toxicity to microorganisms: 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 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

## 13.1 Disposal methods

## Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## 14. TRANSPORT INFORMATION

## 14.1 UN Number

no data available

## 14.2 UN Proper Shipping Name

no data available

## 14.3 Transport hazard class(es)

no data available

## 14.4 Packing group, if applicable

no data available 🏾 🌾

## 14.5 Environmental hazards

no data available

## 14.6 Special precautions for user

no data available

## 14.7 Transport in bulk according to IMO instruments

no data available

# **15. REGULATORY INFORMATION**

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

| EC Inventory United States Toxic Substances Control Act (TSCA) Inventory | Not Listed.    |
|--|----------------|
| United States Toxic Substances Control Act (TSCA) Inventory              | N - + 1 : - +l |
|  | Not Listed.    |
| China Catalog of Hazardous chemicals 2015                                | Not Listed.    |
| New Zealand Inventory of Chemicals (NZI°C)                               | Not Listed.    |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)       | Not Listed.    |
| Vietnam National Chemical Inventory                                      | Not Listed.    |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) | Not Listed.    |
| Korea Existing Chemicals List (KECL)                                     | Not Listed.    |

## 16. OTHER INFORMATION

#### Information on revision

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## Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

## References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request\_l°Cale=en

CAMEO Chemicals, website: http://came°Chemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot. gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp ECHA - European Chemicals Agency, website: https://echa.europa.eu/

## **Other Information**

no data available

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