

## Material Safety Data Sheet

### 1. Identification of the substance

Product Name: Halofuginone hydrobromide  
CAS Number: 64924-67-0  
Catalog number: A857080  
Supplier: Amadis Chemical Co., Ltd.  
Watts Cosine.No.166.Xiangmao Road.310015.  
Hangzhou,Zhejiang,P.R.China  
Tel:0086-571-89925085 Fax:0086-571-89925065

### 2. Composition/information on ingredients.

Ingredient: Halofuginone hydrobromide  
Formula:  $C_{16}H_{18}Br_2ClN_3O_3$   
Molweight: 495.59

### 3. Hazards identification

#### 3.1 Classification of the substance or mixture

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

Acute toxicity, oral(Category 4) H302

Skin corrosion/irritation(Category 2) H315

Serious eye damage/eye irritation(Category 2A ) H319

Specific target organ toxicity, single exposure(Category 3) H335

No Resource File

#### 3.2 GHS Label elements, including precautionary statements



Pictogram

Signal word

Warning

Hazard statement(s)

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
P261	Precautionary statement(s) Avoid breathing dust/fume/gas/mistapours/spray.
P264	Wash hands thoroughly after handling

P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/faceprotection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes.Remove contact lenses, if present

and easy to do. Continue rinsing.

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to in accordance with local

### 3.3 Associated risk phrases according to european directive 67/548/EEC



#### Hazard symbol(s)

#### R-phrase(s)

R22	Harmful if swallowed.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R38	Irritating to skin.

#### S-phrase(s)

S1	Keep locked up.
S20/21	When using do not eat, drink or smoke.
S23	Do not breathe gas/fumesapour/spray.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27	Take off immediately all contaminated clothing.
S28	After contact with skin, wash immediately with plenty of water.
S28B	After contact with skin, wash immediately with plenty of water and soap.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S44	If you feel unwell, seek medical advice (show the label where possible).
S46	If swallowed, seek medical advice immediately and show this container or label.
S51	Use only in well-ventilated areas.

S61  
instructions/Safety data sheets.

Avoid release to the environment. Refer to special

S7/9

Keep container tightly closed and in a well-ventilated place

#### 4. First aid measures

Skin contact: Immediately wash skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, seek medical attention.

Eye contact: Immediately wash skin with copious amounts of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. If irritation persists, seek medical attention.

Inhalation: Remove to fresh air. In severe cases or if symptoms persist, seek medical attention.

Ingestion: Wash out mouth with copious amounts of water for at least 15 minutes. Seek medical attention.

#### 5. Fire fighting measures

In the event of a fire involving this material, alone or in combination with other materials, use drypowder or carbon dioxide extinguishers. Protective clothing and self-contained breathing apparatus should be worn.

#### 6. Accidental release measures

Personal precautions: Wear suitable personal protective equipment which performs satisfactorily and meets

local/state/national standards.

Respiratory precaution: Wear approved mask/respirator

Hand precaution: Wear suitable gloves/gauntlets

Skin protection: Wear suitable protective clothing

Eye protection: Wear suitable eye protection

Methods for cleaning up: Mix with sand or similar inert absorbent material, sweep up and keep in a tightly closed container for disposal. See section 12.

Environmental precautions: Do not allow material to enter drains or water courses.

#### 7. Handling and storage

Handling: This product should be handled only by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals, who should take into account the pre, health and chemical hazard data given on this sheet.

Storage: Store in cool, well ventilated area. Keep container tightly closed.

#### 8. Exposure Controls / PPE

Engineering Controls: Use only in a chemical fume hood.

Personal protective equipment: Wear chemical-resistant gloves, safety goggles.

General hygiene measures: Wash thoroughly after handling. Wash contaminated clothing before reuse.

#### 9. Physical and chemical properties

Appearance : White powder

Odor:	Not available.
Boiling point:	Not available
Melting point:	Not available.
Flash point:	Not available.
Density:	Not available

## 10. Stability and reactivity

Reactivity:	no data
Chemical stability:	no data
Possibility of hazardous reactions:	no data
Conditions to avoid:	!Strong oxidizing agents
Incompatible materials:	Hazardous decomposition products: Other decomposition products - no data available

## 11. Toxicological information

Acute Toxicity:	No date
Skin corrosion/irritation:	Irritant for skin and mucous membranes
Serious eye Damage/irritation:	Irritant effect
Respiratory or skin sensitization:	No date
Germ Cell mutagenicity:	No date
Carcinogenicity:	No date
Reproductive toxicity:	No date
STOT-single exposure:	No date
STOT-repeated exposure:	No date
Aspiration hazard:	No date

## 12. Ecological information

Toxicity:	No data
Persistence and degradability:	No data
Bio accumulative potential:	No data
Mobility in soil:	No data
Results of PBT and vPvB assessment:	No data
Other adverse effects:	No data

## 13. Disposal consideration

Arrange disposal as special waste, by licensed disposal company, in consultation with local waste disposal authority, in accordance with national and regional regulations.

#### 14. Transportation information

##### 14.1 UN number

ADR/RID: 2811                      IMDG: 2811                      IATA: 2811

##### 14.2 UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Halofuginone hydrobromide)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Halofuginone hydrobromide)

IATA: Toxic solid, organic, n.o.s. (Halofuginone hydrobromide)

##### 14.3 Transport hazard class(es)

ADR/RID: 6.1                      IMDG: 6.1                      IATA: 6.1

##### 14.4 Packaging group

ADR/RID: I                              IMDG: I                              IATA: I

##### 14.5 Environmental hazards

ADR/RID: yes                      IMDG Marine pollutant: yes                      IATA: no

##### 14.6 Special precautions for user

No data available

#### 15. Regulatory information

Safety, health and environmental and national regulations:

Product is not subject to any additional regulations or provisions

Safety Assessment

No Chemical Safety Assessment

#### 16. Other information

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this inform