



502796 Hedione

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
Issue date: 19-12-2024 Revision date: 14-07-2026 Version: 2.0

SECTION 1 Identification

1.1. Product identifier

Product form : Substance
Trade name : 502796 Hedione
Chemical name : Hedione
CAS-No. : 24851-98-7
Product code : 502796

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Ingredient for use in products that may be ingested and/or fragrance ingredient for use in consumer product. Not for personal use in this form or concentration. Intended to be used in the manufacture of products for consumers.

1.4. Supplier's details

Supplier

Vigon International, LLC
127 Airport Road,
East Stroudsburg,
PA 18301-9629,
USA

Telephone: +1 570-476-6300
Fax: +1 570-476-1110
Website: www.vigon.com
E-mail: regulatory@vigon.com

1.5. Emergency phone number

Emergency number : CareChem 24x7 ACCT Number: AZELIS-29003 | EUROPE: +44 1235 239670 | USA: +1 202 464 2554 | CANADA - +1 800 579 7421 (Toll Free) | ASIA - +65 3158 1074 | MOROCCO - +44 1235 239671 | REST OF THE WORLD - +44 1865 407333 (English only)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS US classification

Acute Tox. 4 (Inhalation:dust,mist)	H332	Harmful if inhaled.
Aquatic Acute 2	H401	Toxic to aquatic life.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

Full text of hazard classes and H-statements : see section 16

2.2. Label elements

GHS US labelling

Hazard pictograms (GHS US) :



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Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: H332 - Harmful if inhaled H401 - Toxic to aquatic life H411 - Toxic to aquatic life with long lasting effects
Precautionary statements (GHS US)	: P261 - Avoid breathing dust, fume, gas, mist, vapours, spray. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P312 - Call a poison center or doctor if you feel unwell. P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Hedione (Main constituent)	CAS-No.: 24851-98-7	-

Comments : The exact percentage (concentration) of composition has been withheld as a trade secret.

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: As in all cases of potential poisoning, Obtain medical advice immediately.
First-aid measures after inhalation	: In the event of exposure to vapors, immediately remove from the area to a fresh air environment.
First-aid measures after skin contact	: Wash skin with plenty of water. Remove contaminated clothes. If irritation persists, or any sign of tissue damage is apparent, obtain medical advice immediately.
First-aid measures after eye contact	: In the event of contact with the eyes, irrigate with water for at least 15 minutes; obtain medical advice if irritation persists.
First-aid measures after ingestion	: In the event of accidental ingestion, rinse mouth with water. Give up to one tumbler (half pint) of milk or water. Obtain medical advice immediately. Do not induce vomiting, obtain medical advice immediately.

4.2. Most important symptoms/effects, acute and delayed

No additional information available

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

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam, carbon dioxide (CO2), water, dry chemical powder. In the event of fire, adequate extinguishers should be used. Avoid inhalation of smoke and fumes. In case of insufficient ventilation, wear suitable respiratory equipment.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released. Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.

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 : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

For non-emergency personnel

Protective equipment : Gloves impervious to the chemical substance should be worn when handling spillages. No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment). Avoid skin contamination and inhalation of dust. Individual washing routines should be followed after any potential contact. Ensure adequate ventilation in working areas following accidental releases.

Emergency procedures : Ventilate spillage area.

For emergency responders

Protective equipment : Gloves impervious to the chemical substance should be worn when handling spillages. No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment). Avoid skin contamination and inhalation of dust. Individual washing routines should be followed after any potential contact. Ensure adequate ventilation in working areas following accidental releases.

Emergency procedures : Evacuate unnecessary personnel.

Environmental precautions : Do not discharge directly into drains, air, into soil or into the aquatic environment.

6.2. Methods and materials for containment and cleaning up

For containment : Small spills can be wiped up with a cloth or paper. Standard absorbents can be used (saw dust, sand, vermiculite). Wear rubber gloves. Avoid contact with skin. If skin contact occurs, wash liberally with soap and water.

Methods for cleaning up: : Spillages should be disposed of in accordance with Governmental Regulations.

For further information refer to section 13.

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SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling
- : Avoid contact with skin and eyes. Wear gloves impervious to the chemical substance and eye/face protection. No smoking. Avoid exposing to high temperature during processing. Do not ingest or apply to the skin as such. Good personal washing routines should be followed. Maintain adequate local and general ventilation where product is handled. Keep strict control of dust accumulation to a minimum. Maintain adequate local and general ventilation where product is handled. Avoid any sources of ignition.
- Hygiene measures
- : Good personal washing routines should be followed.

7.2. Conditions for safe storage, including incompatibilities

- Storage conditions
- : It is good general practice to store in closed, preferably full, containers away from heat sources, and protected from extremes of temperature. Do not re-use the empty container. Respect generals rules for compatibility storage.
- Incompatible materials
- : Avoid contact with strong oxidizing agents.
- Maximum storage period
- : 545 days

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls
- : Avoid exposing to high temperature during processing. Maintain adequate local and general ventilation where product is handled and dispensed.
- Environmental exposure controls
- : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:
Protective clothing. Safety glasses. Wear protective gloves.

Hand protection:
Gloves impervious to the chemical substance should be worn
Eye protection:
Safety glasses
Skin and body protection:
Wear protective clothing, overall if necessary to limit the odour contamination of personal clothing. Individual washing routines should be followed after any potential contact.
Respiratory protection:
None required under normal condition of use. Avoid breathing vapours

Personal protective equipment symbol(s):



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SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless
Odour	: Characteristic strong odour according to the commercial description of the substance.
Odour threshold	: No data available
pH	: No data available
Melting point	: < 20 °C (OECD 102)
Freezing point	: Not applicable
Boiling point	: 302 °C (OECD 103)
Flash point	: 298 °F (Closed cup)
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.1 mm (20°C in mm Hg)
Relative vapour density at 20°C	: No data available
Relative density	: 1.005 (20°C, OECD 109)
Solubility	: Water: 561 mg/l (20°C, OECD 105)
Partition coefficient n-octanol/water (Log Pow)	: 2.93 (OECD 107)
Auto-ignition temperature	: 259 °C
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Explosive limits	: Not applicable
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

Additional information : Viscosity : 10.788 mPa.s (20°C)

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. No reaction known with water.

10.2. Chemical stability

Presents no significant reactivity hazard. Normally stable even at elevated temperatures and pressures. Avoid temperatures above or near to the flash point. Not pyrophoric nor reactive with water. Does not undergo explosive decomposition, is shock stable, and is not an oxygen donor. Does not form explosive mixtures with other organic materials. Will not undergo hazardous exothermic polymerization.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid temperatures above or at least 5 °C below flash point for any flammable liquids. Do not heat closed containers. Avoid contact with oxidizing agents.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

Toxic fumes may be released. Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products.

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SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

Hedione (24851-98-7)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 4.93 mg/l (OECD 403, Mist)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

Hedione (24851-98-7)	
NOAEL, rat, reproduction	100 mg/kg/day (Conclusion of weight of evidence based on 2 studies)
NOEL, development, Prenatal Development Toxicity, rat	120 mg/kg/day (13 d, OECD 414, Gavage)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Hedione (24851-98-7)	
NOAEL, Repeated dose toxicity, dietary, rat	100 mg/kg/day (90 d, OECD 408)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Hedione (24851-98-7)	
Viscosity, kinematic	Not applicable

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

Hedione (24851-98-7)	
LC50 - Fish [1]	19 mg/l (96 h, Oryzias latipes, OECD 203)
EC50 - Crustacea [1]	8.25 mg/l (48 h, Daphnia sp., OECD 202)
ErC50 algae	45.9 mg/l (72 h, Selenastrum capricornutum, OECD 201, Growth Inhibition Test)
NOEC (chronic)	11.7 mg/l (72 h, Selenastrum capricornutum, OECD 201, Growth Inhibition Test)

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Hedione (24851-98-7)

Additional information	EC10 : 1.86 mg/l (21 d, Daphnia magna, OECD 211)
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12.2. Persistence and degradability

Hedione (24851-98-7)

Persistence and degradability	Readily biodegradable.
Biodegradation	89% (28 d, Manometric Respirometry Test (OECD 301F, Sludge))

12.3. Bioaccumulative potential

Hedione (24851-98-7)

Partition coefficient n-octanol/water (Log Kow)	2.93 (OECD 107)
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12.4. Mobility in soil

Hedione (24851-98-7)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.72 (OECD 121)
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12.5. Other adverse effects

Ozone	: Not classified (Based on available data, the classification criteria are not met)
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Waste treatment methods	: Disposal must be done according to official regulations. The product should not be allowed to enter drains, water courses or the soil.
Product/Packaging disposal recommendations	: Empty packaging should be disposed according to local or national regulations by an approved waste handling.
Additional information	: Do not re-use empty containers.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
UN3082	3082	3082
14.2. Proper Shipping Name		
Environmentally hazardous substances, liquid, n.o.s. (Hedione)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hedione)	Environmentally hazardous substance, liquid, n.o.s. (Hedione)
14.3. Transport hazard class(es)		
9	9	9
		

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DOT	IMDG	IATA
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available		

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

UN-No. (DOT)

: UN3082

DOT Special Provisions (49 CFR 172.102)

: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.
146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.
173 - An appropriate generic entry may be used for this material.
335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx)

: 155

DOT Packaging Non Bulk (49 CFR 173.xxx)

: 203

DOT Packaging Bulk (49 CFR 173.xxx)

: 241

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)

: No Limit

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

: No Limit

DOT Vessel Stowage Location

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

IMDG

Special provisions (IMDG)

: 274, 335, 969

Limited quantities (IMDG)

: 5 L

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Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG)	: A

IATA

Special provisions (IATA)	: A97, A158, A197, A215
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
ERG code (IATA)	: 9L

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

No additional information available

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other Information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date	: 14-07-2026
Issue date	: 19-12-2024

Full text of hazard classes and H-statements	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist), Category 4
Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
H332	Harmful if inhaled

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Full text of hazard classes and H-statements	
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Indication of changes:		
Section	Changed item	Comments
1.5	Emergency phone number	Modified

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.