

Safety Data Sheet

according to OSHA HCS 29 CFR 1910.1200(g)



Trade name: **h-COELENTERAZINE-SOL (in vivo) /2-(4-dehydroxy) COELENTERAZINE** Revision date: 6/01/2020
Product No: 3011

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifiers

Product name: **h-Coelenterazine –SOL (in vivo)**

Product No.: 3011

Manufacturer: Prolume / NanoLight

CAS-no.: 50909-86-9

EC-no.:

Other means of identification: hCTZ, 2-(4-dehydroxy) Coelenterazine

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: substrate for luciferase, laboratory chemical, antioxidant

Details of the supplier of the safety data sheet

Supplier: Prolume
P.O. Box 2746
Pinetop, AZ 85935
USA

phone: +1 928-367-1200

email: info@prolume.com

Emergency telephone number

Phone: +1 928-367-1200

2. HAZARD IDENTIFICATION

Classification of the substance or mixture

GHS classification in accordance with 29 CFR 1910 (OSHA HCS) and No 1272/2008 [CLP] (EC)

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3), H335 may cause respiratory irritation

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GHS label elements including precautionary statements

Pictogram
Signal word



Warning

Hazard statement: H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Precautionary statements:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
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.
P321 Specific treatment (see supplemental first aid instructions on this label).
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 an approved waste disposal plant.

NFPA ratings (scale 0-4)
Health = 2
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0-4)
Health = 2
Fire = 0
Reactivity = 0

Hazards not otherwise classified (HNOC) or not covered by GHS

none

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3. COMPOSTION / INFORMATION ON INGREDIENTS

Substances

Synonyms: 2-(4-dehydroxy) Coelenterazine, h-Coelenterazine-SOL (in vivo), hCTZ
Formula: $C_{26}H_{21}N_3O_2$
Molecular weight: 407.5 g/mol
CAS-No.: 50909-86-9

4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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

Flush eyes with water for at least 10 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

See section 2 and 11

Indication of any immediate medical attention and special treatment needed

No further relevant data available

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water, dry chemical, carbon dioxide or standard foam.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTIAL RELEASE MEASURES

Personal precautions

Avoid breathing dust, vapors, mist or gas. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Wipe surface with moist towel.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of dust, vapor or mist. Avoid direct contact with substance.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store desiccated at $\leq -20^{\circ}\text{C}$.
Product is light sensitive. Protect from light at all times.

8. EXPOSURE CONTROLS – PERSONAL PROTECTION

Components with workplace control parameter

Substance: h-Coelenterazine-SOL (in vivo) CAS# 50909-86-9, Cat.# 3011

Control parameter: No information available

Personal protective equipment

Hand protection: 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.

Respiratory protection: Use type P95 (US) or type P1 (EU EN 143) particle respirators if dust is created. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye 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).

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	h-Coelenterazine
Appearance	Yellow crystalline powder
Odor	No data available
Odor threshold	No data available
pH	No data available
Melting point / freezing point	169-171C

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Boiling point	No data available
Flash point	Not very flammable
Evaporate rate	No data available
Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Keep away from moisture, air, and light.

Materials to avoid: Oxidizing agents

Hazardous decomposition products: formed under thermal decomposition - Carbon oxides, Nitrogen oxides

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11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 None
Inhalation LC50 None
Dermal LD50 None
Other information on acute toxicity no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: May be irritating in dust form

Respiratory or skin sensitization: May be irritating to respiratory tract & mucus membranes

Germ cell mutagenicity: no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Additional Information RTECS: None

12. ECOLOGICAL INFORMATION

Toxicity: no information available

Persistence and degradability: no information available

Biodegradation: no information available

Mobility in soil: no information available

Results of PBT and vPvB assessment: no information available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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13. DISPOSAL CONSIDERATIONS

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

14. TRANSPORT INFORMATION

IATA, IMDG, DOT(US) not dangerous good

UN number: none

UN proper shipping name: none

Transport hazard class: none

Packing group: none

Environmental hazards: none

Special precaution for user: none

15. REGULATORY INFORMATION

US Federal Regulations US Toxic Substances Control Act(TSCA): Not listed

SARA 302: No chemicals were found.

SARA 313: No chemicals were found.

SARA 311/312 Hazards: No chemicals were found.

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16. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008

Prepared by: Regulatory Department - Prolume Inc.

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Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. Prolume shall not be held liable for any damage resulting from handling or contact with the above product.

Department issuing SDS:

Prolume Inc.
P.O. Box 2746
Pinetop, AZ 85935

Date of preparation / revision: 06/01/2020

Abbreviations and acronyms:

DOT: US Department of Transportation
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health