

CAPTIVATE BIO™	<b>Safety Data Sheet</b>		
	<b>Date:</b>	<b>Version/Revision</b>	<b>Department</b>
	JUN 01, 2025	01	Quality
			<b>Doc No:</b> CB-SDS-25-0050
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**Section 1: Product and Company Identification**

1.1 Product Name: Retinoic Acid (GMP)

1.2 Catalog Number(s): SML07BG, SML07KG

1.3 CAS No.: 302-79-4

1.4 Product Use: Laboratory chemicals, manufacture of substances.

1.5 Manufacturer/Supplier: Captivate Bio, LLC  
465 Waverley Oaks Road, STE 105  
Waltham, MA 02452, USA

1.6 Emergency Contact: 1-617-607-4017

**Section 2: Hazards Identification**

2.1 Classification: GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Acute toxicity, Oral (Category 4), H302  
Skin irritation (Category 2), H315  
Reproductive toxicity (Category 1A, 1B), H360  
Short-term (acute) aquatic hazard (Category 2), H410

2.2 GHS Label elements, including precautionary statements:



2.2.1 Pictogram:

2.2.2 Hazard statement(s): H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H360 May damage fertility or the unborn child  
H410 Toxic to aquatic life.

2.2.3 Precautionary statement(s): P264 Wash skin thoroughly after handling.

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P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves, clothing, eyewear, and mask  
P302 + P352 If material touches skin, wash immediately with plenty of soap and water.  
P330 IF SWALLOWED: Call POISON CENTER or doctor/physician for advice and rinse mouth.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 If spilled, clean up and dispose according to approved guidelines.  
P405 Always store in locked cabinet.  
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards: None.

### Section 3: Composition/Information on Ingredients

3.1 Substances:  
3.1.1 Synonyms: Vitamin A acid(GMP) all-trans-Retinoic acid (GMP); ATRA (GMP)  
3.1.2 Formula:  $C_{20}H_{28}O_2$   
3.1.3 Molecular Weight: 300.44  
3.1.4 CAS No.: 302-79-4

### Section 4: First Aid Measures

4.1 Description:  
4.1.1 Eye Contact: Remove any contact lenses, locate eye-wash station, and flush eyes immediately with large amounts of water. Separate eyelids with fingers to ensure adequate flushing. Promptly call a physician.  
4.1.2 Skin contact: Rinse skin thoroughly with large amounts of water. Remove contaminated clothing and shoes and call a physician.  
4.1.3 Inhalation: Immediately relocate self or casualty to fresh air. If breathing is difficult, give cardiopulmonary resuscitation (CPR). Avoid mouth- to-mouth resuscitation.  
4.1.4 Ingestion: Wash out mouth with water; Do NOT induce vomiting; call a physician.

4.2 Most important symptoms and effects, both acute and delayed:  
The most important known symptoms and effects are described in the labelling (see section 2.2).

4.3 Indication of any immediate medical attention and special treatment needed:  
Treat symptomatically.

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**Section 5: Fire-Fighting Measures**

- 5.1 Extinguishing: Use water spray, dry chemical, foam, and carbon dioxide fire extinguisher.
- 5.2 Special hazards arising from the substance or mixture: During combustion, may emit irritant fumes.
- 5.3 Advice for firefighters: Wear self-contained breathing apparatus and protective clothing.

**Section 6: Accidental Release Measures**

- 6.1 Personal precautions, protective equipment, and emergency procedures: Use full personal protective equipment. Avoid breathing vapors, mist, dust or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to protective measures listed in sections 8.
- 6.2 Environmental precautions: Try to prevent further leakage or spillage. Keep the product away from drains or water courses.
- 6.3 Methods and materials for containment and cleaning up: Absorb solutions with finely powdered liquid-binding material (diatomite, universal binders); Decontaminate surfaces and equipment by scrubbing with alcohol; Dispose of contaminated material according to Section 13.
- 6.4 Other: For disposal see section 13.

**Section 7: Handling and Storage**

- 7.1 Precautions for safe handling: Avoid inhalation, contact with eyes and skin. Avoid dust and aerosol formation. Use only in areas with appropriate exhaust ventilation.
- 7.2 Conditions for safe storage, including any incompatibilities: Keep container tightly sealed in cool, well-ventilated area. Keep away from direct sunlight and sources of ignition.  
Recommended storage temperature: 4°C , sealed, away from moisture and sunlight  
Shipping temperature: 15°C -30°C (room temperature), if less than 2 weeks.
- 7.3 Specific end use(s): No data available.

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**Section 8: Exposure Controls/Personal Protection**

8.1 Control parameters: Components with workplace control parameters  
 This product contains no substances with occupational exposure limit values.

8.2 Exposure controls:

8.2.1 Engineering controls: Ensure adequate ventilation. Provide accessible safety shower and eye wash station.

8.3 Personal protective equipment:

8.3.1 Eye Protection: Safety goggles with side-shields.

8.3.2 Hand Protection: Protective gloves.

8.3.3 Skin & Body Protection: Impervious clothing.

8.3.4 Respiratory Protection : Suitable respirator.

8.3.5 Environmental exposure controls:

Keep the product away from drains, water courses, or soil. Clean spillage in a safe way as soon as possible.

**Section 9: Physical and Chemical Properties**

9.1 Information on basic physical and chemical properties

- 9.1.1 Appearance: Solid
- 9.1.2 Odor: No data available
- 9.1.3 Odor threshold: No data available
- 9.1.4 pH: No data available
- 9.1.5 Melting/freezing point: 180-181°C
- 9.1.6 Boiling point/range: No data available
- 9.1.7 Flash point: No data available
- 9.1.8 Evaporation rate: No data available
- 9.1.9 Flammability (solid, gas): No data available
- 9.1.10 Upper/lower flammability or explosive limits: No data available
- 9.1.11 Vapor pressure: No data available
- 9.1.12 Vapor density: No data available
- 9.1.13 Relative density: No data available
- 9.1.14 Water Solubility: No data available
- 9.1.15 Partition coefficient: No data available
- 9.1.16 Auto-ignition temperature: No data available
- 9.1.17 Decomposition temperature: No data available
- 9.1.18 Viscosity: No data available
- 9.1.19 Explosive properties: No data available
- 9.1.20 Oxidizing properties: No data available

9.2 Other safety information: No data available.

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**Section 10: Stability and Reactivity**

- 10.1 Reactivity: No data available.
- 10.2 Chemical stability: Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions: No data available.
- 10.4 Conditions to avoid: No data available.
- 10.5 Incompatible materials: Strong acids/alkalis, strong oxidizing/reducing agents.
- 10.6 Hazardous decomposition: Under fire conditions, may decompose and emit toxic fumes. Other decomposition products - no data available.

**Section 11: Toxicological Information**

- 11.1 Toxicity:
  - 11.1.1 Acute Toxicity: Classified based on available data. For more details, see section 2
  - 11.1.2 Skin corrosion/irritation: Classified based on available data. For more details, see section 2
  - 11.1.3 Serious eye damage/eye irritation: Classified based on available data. For more details, see section 2
  - 11.1.4 Respiratory or skin sensitization: Classified based on available data. For more details, see section 2
  - 11.1.5 Germ cell mutagenicity: Classified based on available data. For more details, see section 2
  - 11.1.6 Carcinogenicity:
    - IARC: No component of this product present at a level equal to or greater than 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
    - ACGIH: No component of this product present at a level equal to or greater than 0.1% is identified as a potential or confirmed carcinogen by ACGIH.
    - NTP: No component of this product present at a level equal to or greater than 0.1% is identified as an anticipated or confirmed carcinogen by NTP.
    - OSHA: No component of this product present at a level equal to or greater than 0.1% is identified as a potential or confirmed carcinogen by OSHA.
  - 11.1.7 Reproductive toxicity: Classified based on available data. For more details, see section 2
  - 11.1.8 STOT - single exposure: Classified based on available data. For more details, see section 2
  - 11.1.9 STOT - repeated exposure: Classified based on available data. For more details, see section 2
  - 11.1.10 Aspiration hazard: Classified based on available data. For more details, see section 2
  - 11.1.11 Additional information:
    - RTECS No.: VH6475000
    - After absorption: Systemic effects: Dizziness Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

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This information is based on our current knowledge. However, the chemical, physical, and toxicological properties have not been completely investigated.

#### Section 12: Ecological Information

- 12.1 Toxicity: 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 Results of PBT and vPvB assessment:  
PBT/vPvB assessment unavailable as chemical safety assessment not required or not conducted.
- 12.6 Other adverse effects: No data available.

#### Section 13: Disposal Considerations

- 13.1 Waste treatment Methods:
- 13.2 Product: Dispose substance in accordance with prevailing country, federal, state and local regulations.
- 13.3 Contaminated packaging: Conduct recycling or disposal in accordance with prevailing country, federal, state and local regulations.

#### Section 14: Transport Information

- 14.1 DOT (US) This substance is considered to be non-hazardous for transport.
- 14.2 IMDG This substance is considered to be non-hazardous for transport
- 14.3 IATA This substance is considered to be non-hazardous for transport

#### Section 15: Regulatory Information

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15.1 SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

15.2 SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

15.3 SARA 311/312 Hazards: No SARA Hazards.

15.4 Massachusetts Right To Know Components:  
No components are subject to the Massachusetts Right to Know Act.

15.5 Pennsylvania Right To Know Components:  
No components are subject to the Pennsylvania Right to Know Act.

15.6 New Jersey Right To Know Components:  
No components are subject to the New Jersey Right to Know Act.

15.7 California Prop. 65 Components:  
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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Prepared by: Captivate Bio Quality Department  
Contact: quality@captivatebio.com

**Warranty and Disclaimers:**  
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