


**Section 1. Product and Company Identification**

Product Name	trans-Retinoic acid, 97%
Product ID	R1780
Chemical Name (Synonyms)	Retinoic acid; Vitamin A acid; tretinoin; Aberel; Avita; Eudyna; Kerlocal; Renova; Retin-A; Vesanoid
Supplier	LKT Laboratories, Inc 545 Phalen Blvd. St. Paul, MN 55130 USA Ph: 651-644-8424 Fax: 651-644-8357 www.lktlabs.com - getinfo@lktlabs.com
Emergency Phone #	1-800-424-9300

Section 2. Hazards Identification

GHS Classification	Acute toxicity, Oral (Category 4), H302 Acute aquatic toxicity (Category 2), H401
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GHS Label elements including precautionary statements

Pictogram	
Signal word	Warning
Hazard and precautionary statements	Hazard statement H302 - Harmful if swallowed. H401 - Toxic to aquatic life. Precautionary statements P264 - Wash skin thoroughly after handling. P370 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 - Rinse mouth. P501 - Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification	Health hazard: 1 Chronic health hazard: * Flammability: 0 Physical hazard: 0
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NFPA Rating	Health hazard: 0 Fire hazard: 0 Reactivity hazard: 0
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Potential Health Effects	Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Skin: May be harmful if absorbed through skin. Causes skin irritation. Eyes: May cause eye irritation.
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Ingestion: Acute toxicity. Harmful if swallowed.

Section 3. Composition/Information on Ingredients

Substances

Formula C₂₀H₂₈O₂
CAS No. 302-79-4

Formula Wt. 300.44
EC No. 206-129-0

Section 4. First Aid Measures

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

Eye Contact Flush eyes with water as a precaution.

Skin Contact Wash off with soap and plenty of water. Consult a physician.

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5. Firefighting Measures

Flash Point Not available.

Extinguishing Media Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide.

Firefighting Procedures Wear self-contained breathing apparatus and protective clothing for fire fighting if necessary.

Unusual Fire Hazards Carbon oxides.

Section 6. Accidental Release Measures

Personal Precautions Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleanup Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Storage Conditions Store in a tightly closed container in a dry, dark and well-ventilated place. Recommended storage temperature: -20 °C. This product is light sensitive.

Hazardous Decomposition Products Not available.

Other Remarks Weigh out this product in the dark.

Section 8. Exposure Controls/Personal Protection

Personal protective equipment

EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

PERSONAL PROTECTION

Eye/face protection: Safety glasses with side-shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin 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. Full and Splash contact - Material: Nitrile rubber, Minimum layer thickness: 0.11mm, Break through time: 480 min., Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M).

Body protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143 respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

Physical State	Solid.	Color	Yellow/ slight orange crystal powder.
Boiling Point	Not available.	Volatility	Not available.
Melting Point	180°C-182°C	Density	Not available.
Solubility	Soluble in DMSO. Slightly soluble in polyethylene glycol, octanol or ethanol. Practically insoluble in water, mineral oil or glycerin.	pH	Not available.
Flash Point	Not available.	Ignition temperature	Not available.
Lower explosion limit	Not available.	Autoignition temperature	Not available.
Upper explosion limit	Not available.	Vapor pressure	Not available.
Water solubility	Practically insoluble in water.	Odor	Not available.
Partition coefficient: n-octanol/water	Not available.	Odor Threshold	Not available.
Relative vapor density	Not available.	Evaporation rate	Not available.

Section 10. Stability and Reactivity

Stability	Stable under recommended storage conditions. This product is light sensitive.
Materials To Avoid	Keep away from strong oxidizing agents.
Hazardous Decomposition Products	Not available.

Possibility of hazardous reactions Not available.

Conditions to avoid Light.

Section 11. Toxicological Information

Oral LD50 Rat - 2,000 mg/kg

Skin corrosion/irritation Not available.

Inhalation LC50 Not available.

Serious eye damage/irritation Eyes - rabbit
Result: No eye irritation.

Dermal LD50 Rabbit - > 2,500 mg/kg.

Respiratory or skin sensitization Not available.

Other information on acute toxicity Not available.

Germ cell mutagenicity Negative.

Reproductive Toxicity Not available.

Aspiration Hazard Not available.

Specific organ toxicity single exposure (GHS) Not available.

Synergistic effects Not available.

Specific organ toxicity repeated exposure (GHS) Not available.

Additional Information RTECS: VH6475000
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Teratogenicity Not available.

Signs and symptoms of exposure Not available.

Potential Health Effects Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: May cause eye irritation.
Ingestion: Acute toxicity. Harmful if swallowed.

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.

Section 12. Ecological Information

Toxicity Toxicity to fish.
LC50 - Danio rerio (zebra fish) - 4.64 mg/l - 96 h.

Mobility in soil Not available.

PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/ not

conducted.

Persistence and degradability Biodegradability
Result: > 60% - Readily biodegradable.

Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

Bioaccumulative potential Does not bioaccumulate.

Section 13. Disposal Considerations

Waste Disposal Dispose of material according to all federal, state and local regulations.
Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

DOT (US) Not dangerous goods.

IATA UN number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, solid n.o.s (Tretinoin)

IMDG UN number: 3077 Class: 9 Packing group: III EMS No.: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tretinoin)

Further Information EHS-MARK REQUIRED (ADR 2.2.9.1.10, IMDG code 2.10/3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

Section 15. Regulatory Information

Reach No.

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

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.

SARA 311/312 Components Acute health hazard

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

Pennsylvania Right To Know Components trans-Retinoic acid CAS #: 302-79-4 Revision Date:

New Jersey Right To Know Components trans-Retinoic acid CAS #: 302-79-4 Revision Date:

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.

Section 16. Other Information

Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.

Updated 6/11/2020

For emergencies in the USA, call
CHEMTREC 800-424-9300