

Material Safety Data Sheet

all-trans-Retinyl acetate, 1.5 million IU/g, in sunflower oil, stabilized with tocopherol

ACC# 62867

Section 1 - Chemical Product and Company Identification

MSDS Name: all-trans-Retinyl acetate, 1.5 million IU/g, in sunflower oil, stabilized with tocopherol

Catalog Numbers: AC418980000, AC418980010, AC418980050, AC418980250, AC418982500

Synonyms: Retinol, acetate; Retinyl acetate; Vitamin A acetate; all-trans Vitamin A acetate.

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
119-13-1	delta-Tocopherol	0.03	204-299-0
127-47-9	Retinol, acetate	?	204-844-2
8001-21-6	Sunflower oil	?	232-273-9

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: oily liquid.

Warning! Causes skin irritation. May cause eye irritation. Possible risk of harm to the unborn child. Keep refrigerated. (Store below 4°C/39°F.)

Target Organs: Blood, central nervous system, liver, spleen, eyes, skin, bone.

Potential Health Effects

Eye: May cause eye irritation.

Skin: Causes skin irritation.

Ingestion: May cause irritation of the digestive tract. Low hazard for usual industrial handling.

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic: Possible risk of harm to the unborn child. Excessive intake of vitamin A for long periods of time results in a toxic syndrome known as hypervitaminosis A. Signs and symptoms include dry and itchy skin, peeling of skin, dermatitis, disturbed hair growth, chapped lips, bone fractures, headaches, loss of appetite, edema, irritability, drowsiness, dizziness, vomiting and liver effects.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.

Flash Point: > 100 deg C (> 212.00 deg F)

Autoignition Temperature: > 250 deg C (> 482.00 deg F)

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills

immediately, observing precautions in the Protective Equipment section.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Storage under a nitrogen blanket has been recommended. Store protected from light and air. Refrigeration has been recommended.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
delta-Tocopherol	none listed	none listed	none listed
Retinol, acetate	none listed	none listed	none listed
Sunflower oil	none listed	none listed	none listed

OSHA Vacated PELs: delta-Tocopherol: No OSHA Vacated PELs are listed for this chemical. Retinol, acetate: No OSHA Vacated PELs are listed for this chemical. Sunflower oil: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: yellow-brown - oily

Odor: amine-like

pH: Not applicable.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: 20 mPa.s @ 60 deg C

Boiling Point: Not available.

Freezing/Melting Point: 57 deg C

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: Not available.

Molecular Formula: C₂₂H₃₂O₂

Molecular Weight: 328.48

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Oxidizes when exposed to air.

Conditions to Avoid: Temperatures above 65°C, prolonged exposure to air, excess light.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acetic acid.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 119-13-1 unlisted.

CAS# 127-47-9: VH6825000

CAS# 8001-21-6 unlisted.

LD50/LC50:

Not available.

CAS# 127-47-9:

Oral, mouse: LD50 = 4100 mg/kg;

CAS# 8001-21-6:

Carcinogenicity:

CAS# 119-13-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 127-47-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 8001-21-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: Excessive intake of vitamin A and some other retinoids is known to cause birth defects in laboratory animals and humans.

Reproductive Effects: No information available.

Mutagenicity: See actual entry in RTECS for complete information.

Neurotoxicity: No information available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 119-13-1 is listed on the TSCA inventory.

CAS# 127-47-9 is listed on the TSCA inventory.

CAS# 8001-21-6 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 127-47-9: immediate, delayed, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 119-13-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 127-47-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 8001-21-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XN

Risk Phrases:

- R 38 Irritating to skin.
- R 63 Possible risk of harm to the unborn child.

Safety Phrases:

- S 36/37 Wear suitable protective clothing and gloves.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

- CAS# 119-13-1: No information available.
- CAS# 127-47-9: No information available.
- CAS# 8001-21-6: No information available.

Canada - DSL/NDSL

- CAS# 119-13-1 is listed on Canada's DSL List.
- CAS# 127-47-9 is listed on Canada's DSL List.
- CAS# 8001-21-6 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 1/07/1999

Revision #4 Date: 3/22/2006

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.