

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

SECTION 1. IDENTIFICATION

Product name : Multivitamin (with Sunflower Oil) Formulation

Manufacturer or supplier's details

Company name of supplier : Merck & Co., Inc
Address : 126 E. Lincoln Avenue
Rahway, New Jersey U.S.A. 07065
Telephone : 908-740-4000
Emergency telephone : 1-908-423-6000
E-mail address : EHSDATASTEWARD@merck.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product
Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization : Category 1
Reproductive toxicity : Category 1A
Specific target organ toxicity : Category 1 (Liver)
- repeated exposure

Other hazards

None known.

GHS label elements

| | |
|--------------------------|--|
| Hazard pictograms | : |
| Signal Word | : Danger |
| Hazard Statements | : H317 May cause an allergic skin reaction. H360D May damage the unborn child. H372 Causes damage to organs (Liver) through prolonged or repeated exposure. |
| Precautionary Statements | : Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe mist or vapors. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing must not be allowed out of |

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

Version 5.0 Revision Date: 06/16/2025 SDS Number: 6599057-00011 Date of last issue: 04/14/2025
Date of first issue: 10/15/2020

the workplace.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical attention.
P333 + P313 If skin irritation or rash occurs: Get medical attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

| Chemical name | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|---------------------------|-------------------|-----------------------|--------------|
| Sunflower oil | 8001-21-6* | >= 80 - <= 100 | TSC |
| Retinyl propionate | 7069-42-3* | >= 5 - <= 10 | TSC |
| (dl)-a-Tocopheryl acetate | 7695-91-2* | >= 1 - <= 5 | TSC |
| Benzyl alcohol | 100-51-6* | >= 0.5 - <= 1.5 | TSC |
| Colecalciferol | 67-97-0* | <= 0.1 | TSC |

* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

| | |
|---|---|
| In case of eye contact | : Thoroughly clean shoes before reuse. Flush eyes with water as a precaution. Get medical attention if irritation develops and persists. |
| If swallowed | : If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water. |
| Most important symptoms and effects, both acute and delayed | : May cause an allergic skin reaction. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). |
| Notes to physician | : Treat symptomatically and supportively. |

SECTION 5. FIRE-FIGHTING MEASURES

| | |
|--|---|
| Suitable extinguishing media | : Water spray Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical |
| Unsuitable extinguishing media | : None known. |
| Specific hazards during fire fighting | : Exposure to combustion products may be a hazard to health. |
| Hazardous combustion products | : Carbon oxides |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area. |
| Special protective equipment for fire-fighters | : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8). |
| Environmental precautions | : Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages |

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

Version 5.0 Revision Date: 06/16/2025 SDS Number: 6599057-00011 Date of last issue: 04/14/2025
Date of first issue: 10/15/2020

cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.
Do not breathe mist or vapors.
Do not swallow.
Avoid contact with eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labeled containers.
Store locked up.
Keep tightly closed.
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents
Self-reactive substances and mixtures
Organic peroxides
Explosives
Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Components | CAS-No. | Value type (Form of | Control parameters / Permissible | Basis |
|------------|---------|------------------------|----------------------------------|-------|
|------------|---------|------------------------|----------------------------------|-------|

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

Version 5.0 Revision Date: 06/16/2025 SDS Number: 6599057-00011 Date of last issue: 04/14/2025
Date of first issue: 10/15/2020

| | | exposure) | concentration | |
|---------------------------|-----------|-------------------------|---------------------------|-----------|
| Sunflower oil | 8001-21-6 | TWA (mist - total) | 10 mg/m ³ | NIOSH REL |
| | | TWA (mist - respirable) | 5 mg/m ³ | NIOSH REL |
| (dl)-a-Tocopheryl acetate | 7695-91-2 | TWA | 5000 ug/m3 (OEB 1) | Internal |
| Benzyl alcohol | 100-51-6 | TWA | 10 ppm | US WEEL |
| Colecalciferol | 67-97-0 | TWA | 5 µg/m3 (OEB 4) | Internal |
| | | Wipe limit | 50 µg/100 cm ² | Internal |

Engineering measures : The information below is intended for larger pilot/commercial-scale operations and manufacturing. For smaller scale, clinical, or pharmacy settings, site-specific internal risk assessment practices should be conducted to determine appropriate exposure control measures. The health hazard risks of handling this material are dependent on multiple factors, including but not limited to physical form and quantity handled. If applicable, use process enclosures, local exhaust ventilation (e.g., Biosafety Cabinet, Ventilated Balance Enclosures), or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels as low as reasonably achievable.

All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Essentially no open handling permitted.

Use closed processing systems or containment technologies. If handled in a laboratory, use a properly designed biosafety cabinet, fume hood, or other containment device if the potential exists for aerosolization. If this potential does not exist, handle over lined trays or benchtops.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.
Eye protection : Wear safety glasses with side shields or goggles.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

| | |
|--------------------------|--|
| Skin and body protection | : If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols. Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing. |
| Hygiene measures | : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use. The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|------------------------|
| Appearance | : liquid |
| Color | : transparent amber |
| Odor | : No data available |
| Odor Threshold | : No data available |
| pH | : No data available |
| Melting point/freezing point | : No data available |
| Initial boiling point and boiling range | : No data available |
| Flash point | : No data available |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Flammability (liquids) | : No data available |
| Upper explosion limit / Upper flammability limit | : No data available |

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

| | | |
|--|---|--|
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density | : | No data available |
| Relative density | : | No data available |
| Density | : | 0.925 g/cm ³ |
| Solubility(ies) | : | |
| Water solubility | : | No data available |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | : | |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Molecular weight | : | No data available |
| Particle characteristics | : | |
| Particle size | : | Not applicable |

SECTION 10. STABILITY AND REACTIVITY

| | | |
|------------------------------------|---|--|
| Reactivity | : | Not classified as a reactivity hazard. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | Can react with strong oxidizing agents. |
| Conditions to avoid | : | None known. |
| Incompatible materials | : | Oxidizing agents |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

Sunflower oil:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Remarks: Based on data from similar materials

Retinyl propionate:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

(dl)-a-Tocopheryl acetate:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 3,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Benzyl alcohol:

Acute oral toxicity : LD50 (Rat): 1,200 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.4 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Colecalciferol:

Acute oral toxicity : LD50 (Rat, male): 35 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 0.05 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgment

Acute dermal toxicity : Acute toxicity estimate: 50 mg/kg
Method: Expert judgment

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Skin corrosion/irritation

Not classified based on available information.

Components:

Sunflower oil:

| | | |
|---------|---|--------------------------------------|
| Species | : | Rabbit |
| Method | : | OECD Test Guideline 404 |
| Result | : | No skin irritation |
| Remarks | : | Based on data from similar materials |

Retinyl propionate:

| | | |
|---------|---|-------------------------|
| Species | : | Rabbit |
| Method | : | OECD Test Guideline 404 |
| Result | : | Mild skin irritation |

(dl)-a-Tocopheryl acetate:

| | | |
|---------|---|-------------------------|
| Species | : | Rabbit |
| Method | : | OECD Test Guideline 404 |
| Result | : | No skin irritation |

Benzyl alcohol:

| | | |
|---------|---|-------------------------|
| Species | : | Rabbit |
| Method | : | OECD Test Guideline 404 |
| Result | : | No skin irritation |

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Sunflower oil:

| | | |
|---------|---|--------------------------------------|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Remarks | : | Based on data from similar materials |

Retinyl propionate:

| | | |
|---------|---|-------------------------|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Method | : | OECD Test Guideline 405 |

(dl)-a-Tocopheryl acetate:

| | | |
|---------|---|-------------------------|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Method | : | OECD Test Guideline 405 |

Benzyl alcohol:

| | | |
|---------|---|--|
| Species | : | Rabbit |
| Result | : | Irritation to eyes, reversing within 21 days |

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

|| Method : OECD Test Guideline 405

Colecalciferol:

|| Species : Rabbit
|| Result : No eye irritation

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Components:

Sunflower oil:

|| Test Type : Maximization Test
|| Routes of exposure : Skin contact
|| Species : Guinea pig
|| Result : negative
|| Remarks : Based on data from similar materials

Retinyl propionate:

|| Test Type : Maximization Test
|| Routes of exposure : Skin contact
|| Species : Guinea pig
|| Method : OECD Test Guideline 406
|| Result : negative

(dl)-a-Tocopheryl acetate:

|| Test Type : Draize Test
|| Routes of exposure : Skin contact
|| Species : Humans
|| Result : negative

Benzyl alcohol:

|| Test Type : Human repeat insult patch test (HRIPT)
|| Routes of exposure : Skin contact
|| Species : Humans
|| Result : positive

|| Assessment : Probability or evidence of low to moderate skin sensitization rate in humans

Colecalciferol:

|| Test Type : Maurer optimisation test
|| Routes of exposure : Skin contact
|| Species : Guinea pig
|| Result : negative

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Germ cell mutagenicity

Not classified based on available information.

Components:

Sunflower oil:

| | |
|-----------------------|--|
| Genotoxicity in vitro | : Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials |
|-----------------------|--|

| | |
|--|---|
| | Test Type: Chromosome aberration test in vitro Result: negative Remarks: Based on data from similar materials |
|--|---|

| | |
|----------------------|--|
| Genotoxicity in vivo | : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 474 Result: negative Remarks: Based on data from similar materials |
|----------------------|--|

Retinyl propionate:

| | |
|-----------------------|--|
| Genotoxicity in vitro | : Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials |
|-----------------------|--|

| | |
|----------------------|--|
| Genotoxicity in vivo | : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 474 Remarks: Based on data from similar materials |
|----------------------|--|

(dl)-a-Tocopheryl acetate:

| | |
|-----------------------|---|
| Genotoxicity in vitro | : Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative |
|-----------------------|---|

| | |
|--|---|
| | Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative |
|--|---|

| | |
|----------------------|--|
| Genotoxicity in vivo | : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Ingestion |
|----------------------|--|

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Result: negative

Benzyl alcohol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Colecalciferol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: equivocal

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Test Type: In vivo mammalian alkaline comet assay
Species: Rat
Application Route: Ingestion
Result: positive

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Not classified based on available information.

Components:

(dl)-a-Tocopheryl acetate:

Species : Rat
Application Route : Ingestion
Exposure time : 104 weeks
Result : negative

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Benzyl alcohol:

| | |
|-------------------|---------------------------|
| Species | : Mouse |
| Application Route | : Ingestion |
| Exposure time | : 103 weeks |
| Method | : OECD Test Guideline 451 |
| Result | : negative |

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

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

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

Reproductive toxicity

May damage the unborn child.

Components:

Sunflower oil:

| | |
|----------------------|---|
| Effects on fertility | : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Result: negative Remarks: Based on data from similar materials |
|----------------------|---|

Retinyl propionate:

| | |
|------------------------------------|---|
| Effects on fetal development | : Test Type: Embryo-fetal development Species: Monkey Application Route: Ingestion Result: positive Remarks: Based on data from similar materials |
| Reproductive toxicity - Assessment | : Positive evidence of adverse effects on development from human epidemiological studies. |

(dl)-a-Tocopheryl acetate:

| | |
|------------------------------|---|
| Effects on fertility | : Test Type: Reproduction/Developmental toxicity screening test Species: Rat Application Route: Ingestion Result: negative |
| Effects on fetal development | : Test Type: Embryo-fetal development Species: Rabbit Application Route: Ingestion Result: negative |

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Benzyl alcohol:

| | | |
|----------------------|---|---|
| Effects on fertility | : | Test Type: Fertility/early embryonic development Species: Rat Application Route: Ingestion Result: negative Remarks: Based on data from similar materials |
|----------------------|---|---|

| | | |
|------------------------------|---|---|
| Effects on fetal development | : | Test Type: Embryo-fetal development Species: Mouse Application Route: Ingestion Result: negative |
|------------------------------|---|---|

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Causes damage to organs (Liver) through prolonged or repeated exposure.

Components:

Retinyl propionate:

| | | |
|--------------------|---|---|
| Routes of exposure | : | Ingestion |
| Target Organs | : | Liver |
| Assessment | : | Causes damage to organs through prolonged or repeated exposure. |
| Remarks | : | Based on data from similar materials |

Colecalciferol:

| | | |
|--------------------|---|--|
| Routes of exposure | : | Ingestion |
| Target Organs | : | Kidney, Blood, Bone |
| Assessment | : | Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less. |

Repeated dose toxicity

Components:

Sunflower oil:

| | | |
|-------------------|---|--------------------------------------|
| Species | : | Rat |
| NOAEL | : | > 100 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 90 Days |
| Remarks | : | Based on data from similar materials |

Retinyl propionate:

| | | |
|-------------------|---|--------------------------------------|
| Species | : | Rat |
| LOAEL | : | > 1 - 10 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 3 Months |
| Remarks | : | Based on data from similar materials |

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

(dl)-a-Tocopheryl acetate:

| | |
|-------------------|-------------|
| Species | : Rat |
| NOAEL | : 500 mg/kg |
| Application Route | : Ingestion |
| Exposure time | : 90 Days |

Benzyl alcohol:

| | |
|-------------------|-------------------------------|
| Species | : Rat |
| NOAEL | : 1.072 mg/l |
| Application Route | : inhalation (dust/mist/fume) |
| Exposure time | : 28 Days |
| Method | : OECD Test Guideline 412 |

Colecalciferol:

| | |
|-------------------|---------------------------|
| Species | : Rat |
| NOAEL | : 0.06 mg/kg |
| LOAEL | : 0.3 mg/kg |
| Application Route | : Ingestion |
| Exposure time | : 90 Days |
| Method | : OECD Test Guideline 408 |

Aspiration toxicity

Not classified based on available information.

Experience with human exposure

Components:

Retinyl propionate:

| | |
|-----------|--|
| Ingestion | : Symptoms: liver impairment Remarks: Based on data from similar materials Symptoms: Embryo-fetal toxicity. Remarks: Based on data from similar materials |
|-----------|--|

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Sunflower oil:

| | |
|---|---|
| Toxicity to fish | : LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Method: ISO 7346/1 Remarks: Based on data from similar materials |
| Toxicity to daphnia and other aquatic invertebrates | : EL50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction Method: Directive 67/548/EEC, Annex V, C.2. Remarks: Based on data from similar materials |

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Toxicity to algae/aquatic plants : NOELR (Desmodesmus subspicatus (green algae)): > 1 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: Regulation (EC) No. 440/2008, Annex, C.3
Remarks: Based on data from similar materials

EL50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: Regulation (EC) No. 440/2008, Annex, C.3
Remarks: Based on data from similar materials

Retinyl propionate:

Toxicity to fish : LL50 (Leuciscus idus (Golden orfe)): > 10,000 mg/l
Exposure time: 96 h
Method: DIN 38412

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l
Exposure time: 180 min
Method: OECD Test Guideline 209

(dl)-a-Tocopheryl acetate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 100 mg/l
Exposure time: 28 d

Toxicity to microorganisms : EC50: > 927 mg/l
Exposure time: 30 min
Method: ISO 8192

Benzyl alcohol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 460 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 230 mg/l

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

| | |
|--|--|
| aquatic invertebrates | Exposure time: 48 h Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : EC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 310 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 51 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 |

Colecalciferol:

| | |
|---|--|
| Toxicity to fish | : LL50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : EL50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : EL50 (Scenedesmus capricornutum (fresh water algae)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 201 |

Persistence and degradability

Components:

Sunflower oil:

| | |
|------------------|---|
| Biodegradability | : Result: Readily biodegradable. Remarks: Based on data from similar materials |
|------------------|---|

Retinyl propionate:

| | |
|------------------|--|
| Biodegradability | : Result: Not readily biodegradable. Biodegradation: 40 - 50 % Exposure time: 28 d Method: OECD Test Guideline 301B |
|------------------|--|

(dl)-a-Tocopheryl acetate:

| | |
|------------------|--|
| Biodegradability | : Result: Not readily biodegradable. Biodegradation: 21.7 - 31 % Exposure time: 28 d Method: OECD Test Guideline 301C |
|------------------|--|

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Benzyl alcohol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 92 - 96 %
Exposure time: 14 d

Colecalciferol:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: <= 7 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

Bioaccumulative potential

Components:

Sunflower oil:

Partition coefficient: n-octanol/water : log Pow: > 6
Remarks: Expert judgment

Retinyl propionate:

Partition coefficient: n-octanol/water : log Pow: 9.12
Remarks: Calculation

Benzyl alcohol:

Partition coefficient: n-octanol/water : log Pow: 1.05

Colecalciferol:

Partition coefficient: n-octanol/water : log Pow: > 6.2
Method: OECD Test Guideline 107

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.
Do not dispose of waste into sewer.
Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitization
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 : 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.

US State Regulations

Pennsylvania Right To Know

| | |
|--------------------|-----------|
| Sunflower oil | 8001-21-6 |
| Retinyl propionate | 7069-42-3 |
| Benzyl alcohol | 100-51-6 |

California Prop. 65

WARNING: This product can expose you to chemicals including Retinyl propionate, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Permissible Exposure Limits for Chemical Contaminants

| | |
|---------------|-----------|
| Sunflower oil | 8001-21-6 |
|---------------|-----------|

The ingredients of this product are reported in the following inventories:

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

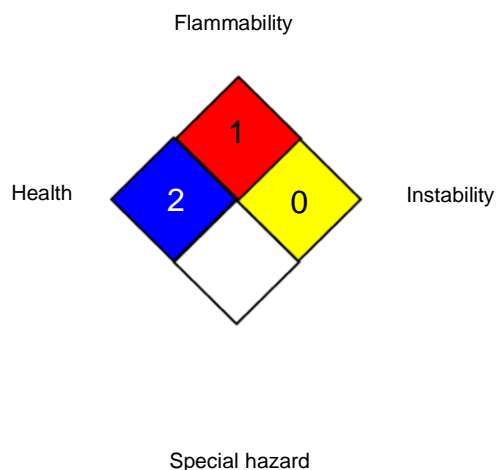
| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

| | | |
|-------|---|----------------|
| DSL | : | not determined |
| AICS | : | not determined |
| IECSC | : | not determined |

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

| | | |
|-----------------|---|---|
| HEALTH | * | 3 |
| FLAMMABILITY | | 1 |
| PHYSICAL HAZARD | | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

| | | |
|-----------------|---|---|
| NIOSH REL | : | USA. NIOSH Recommended Exposure Limits |
| US WEEL | : | USA. Workplace Environmental Exposure Levels (WEEL) |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| US WEEL / TWA | : | 8-hr TWA |

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Multivitamin (with Sunflower Oil) Formulation

| | | | |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/14/2025 |
| 5.0 | 06/16/2025 | 6599057-00011 | Date of first issue: 10/15/2020 |

Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 06/16/2025

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8