

SYNCRYSTAL Sapphire

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|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 12/05/2019 |
| 2.1 | 08/30/2022 | 102000002386 | Date of first issue: 03/21/2018 |

SECTION 1. IDENTIFICATION

Product name : SYNCRYSTAL Sapphire
Product code : 035650MJ0

Manufacturer or supplier's details

Company name of supplier : ECKART America Corporation
Address : 830 East Erie Street
Painesville OH 44077
Telephone : 866-458-7837
(440) 954-7600
Telefax : (440) 354-6224
e-mail adresse : info.eckart.america.oh@altana.com
Emergency telephone : **CHEMTREC:** 800-424-9300
CHEMTREC: 1-703-527-3387 (International)

NCEC:

(contract no. ECKART29003-NCEC)
US: +1 866 928 0789 (Toll free)
Canada: +1 800 579 7421 (Toll Free)
Mexico: +52 55 5004 8763

SECTION 2. HAZARDS IDENTIFICATION

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

Combustible dust

GHS label elements

Signal Word : Warning
Hazard Statements : May form combustible dust concentrations in air.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous ingredients**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|------------|-----------------------|
| Fluorophlogopite (Mg ₃ K[AlF ₂ O(SiO ₃) ₃]) | 12003-38-2 | >= 50 - < 70 |
| Titanium oxide (TiO ₂) | 13463-67-7 | >= 30 - < 50 |

Actual concentration is withheld as a trade secret

SYNCRYSTAL Sapphire

| | | | |
|---------|----------------|--------------|---------------------------------|
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| 2.1 | 08/30/2022 | 102000002386 | Date of first issue: 03/21/2018 |

SECTION 4. FIRST AID MEASURES

| | | |
|---|---|---|
| General advice | : | Do not leave the victim unattended. |
| If inhaled | : | If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. |
| In case of skin contact | : | Wash off with soap and water. |
| In case of eye contact | : | Remove contact lenses. If eye irritation persists, consult a specialist. |
| If swallowed | : | Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. |
| Most important symptoms and effects, both acute and delayed | : | None known. |

SECTION 5. FIRE-FIGHTING MEASURES

| | | |
|--|---|---|
| Further information | : | Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Special protective equipment for fire-fighters | : | Wear self-contained breathing apparatus for firefighting if necessary. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Avoid dust formation. |
| Environmental precautions | : | If the product contaminates rivers and lakes or drains inform respective authorities. |
| 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. |

SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|--|
| Advice on protection against fire and explosion | : | Provide appropriate exhaust ventilation at places where dust is formed. |
| Advice on safe handling | : | For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. |

SYNCRYSTAL Sapphire

Version 2.1 Revision Date: 08/30/2022 SDS Number: 102000002386 Date of last issue: 12/05/2019
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Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.
 Materials to avoid : No materials to be especially mentioned.
 Further information on storage stability : Keep in a dry place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--|------------|--|--|----------|
| Fluorophlogopite (Mg ₃ K[AlF ₂ O(SiO ₃) ₃]) | 12003-38-2 | TWA | 2.5 mg/m ³ (Fluorine) | OSHA Z-1 |
| | | TWA | 2.5 mg/m ³ (Fluorine) | ACGIH |
| | | TWA (Respirable particulate matter) | 1 mg/m ³ (Aluminum) | ACGIH |
| | | TWA | 2.5 mg/m ³ (Fluorine) | OSHA P0 |
| Titanium oxide (TiO ₂) | 13463-67-7 | TWA (total dust) | 50 Million particles per cubic foot | OSHA Z-3 |
| | | TWA (total dust) | 15 mg/m ³ | OSHA Z-3 |
| | | TWA (respirable fraction) | 5 mg/m ³ | OSHA Z-3 |
| | | TWA (respirable fraction) | 15 Million particles per cubic foot | OSHA Z-3 |
| | | TWA (total dust) | 15 mg/m ³ | OSHA Z-1 |
| | | TWA (Total dust) | 10 mg/m ³ | OSHA P0 |
| | | TWA | 10 mg/m ³ (Titanium dioxide) | ACGIH |

Biological occupational exposure limits

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|------------|---------|--------------------|---------------------|---------------|---------------------------|-------|
|------------|---------|--------------------|---------------------|---------------|---------------------------|-------|

SYNCRYSTAL Sapphire

Version 2.1 Revision Date: 08/30/2022 SDS Number: 102000002386 Date of last issue: 12/05/2019
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| | | | | | | |
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| Fluorophlogopite (Mg ₃ K[AlF ₂ O(SiO ₃) ₃]) | 12003-38-2 | Fluoride (Fluorine) | Urine | Prior to shift (16 hours after exposure ceases) | 2 mg/l | ACGIH BEI |
| | | Fluoride (Fluorine) | Urine | End of shift (As soon as possible after exposure ceases) | 3 mg/l | ACGIH BEI |

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Color : blue

Odor : odorless

Odor Threshold : No data available

pH : substance/mixture is non-soluble (in water)

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) : Will not burn

combustible dust

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative density : No data available

Density : 3.12 g/cm³

SYNCRYSTAL Sapphire

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 12/05/2019 |
| 2.1 | 08/30/2022 | 102000002386 | Date of first issue: 03/21/2018 |

| | | |
|--|---|-----------------------|
| Bulk density | : | 0.4 g/cm ³ |
| Solubility(ies) | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | : | No data available |

SECTION 10. STABILITY AND REACTIVITY

| | | |
|------------------------------------|---|--|
| Reactivity | : | No decomposition if stored and applied as directed. |
| Chemical stability | : | No decomposition if stored and applied as directed. |
| Possibility of hazardous reactions | : | Stable under recommended storage conditions. No hazards to be specially mentioned. Dust may form explosive mixture in air. |
| Conditions to avoid | : | No data available |

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Components:**Titanium oxide (TiO₂):**

| | | |
|---------------------------|---|--|
| Acute oral toxicity | : | LD ₅₀ (Rat): > 5,000 mg/kg |
| Acute inhalation toxicity | : | LC ₅₀ (Rat): 6.8 mg/l Exposure time: 4 h Test atmosphere: dust/mist |
| Acute dermal toxicity | : | LD ₅₀ (Rabbit): > 5,000 mg/kg |

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

SYNCRYSTAL Sapphire

| | | | |
|---------|----------------|--------------|---------------------------------|
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| 2.1 | 08/30/2022 | 102000002386 | Date of first issue: 03/21/2018 |

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC

Group 2B: Possibly carcinogenic to humans

Titanium oxide (TiO₂) 13463-67-7

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

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

Components:

Fluorphlogopite (Mg₃K[AlF₂O(SiO₃)₃]):

SYNCRYSTAL Sapphire

| | | | |
|---------|----------------|--------------|---------------------------------|
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Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**Domestic regulation****49 CFR**

Not regulated as a dangerous good

49 CFR

: Not classified as dangerous in the meaning of transport regulations.

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Remarks

: Not classified as dangerous in the meaning of transport regulations.

ADR

: Not classified as dangerous in the meaning of transport regulations.

IATA-DGR

: Not classified as dangerous in the meaning of transport regulations.

IMDG-Code

: Not classified as dangerous in the meaning of transport regulations.

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SYNCRYSTAL Sapphire

| | | | |
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SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know****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 : Combustible dust

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.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations**Massachusetts Right To Know**

| | |
|------------------------------------|------------|
| Titanium oxide (TiO ₂) | 13463-67-7 |
|------------------------------------|------------|

Pennsylvania Right To Know

| | |
|---|------------|
| Fluorophlogopite (Mg ₃ K[AlF ₂ O(SiO ₃) ₃]) | 12003-38-2 |
|---|------------|

| | |
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Ferrate(4-), hexakis(cyano-.kappa.C)-, iron(3+) (3:4), (OC-6-11)- 14038-43-8

California Prop. 65

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



WARNING: This product can expose you to chemicals including Titanium oxide (TiO₂), which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

Fluorophlogopite (Mg₃K[AlF₂O(SiO₃)₃]) 12003-38-2

California Permissible Exposure Limits for Chemical Contaminants

Fluorophlogopite (Mg₃K[AlF₂O(SiO₃)₃]) 12003-38-2

Titanium oxide (TiO₂) 13463-67-7

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

DSL : All components of this product are on the Canadian DSL
TSCA : On TSCA Inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

| | | |
|-------------|---|--|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| ACGIH BEI | : | ACGIH - Biological Exposure Indices (BEI) |
| OSHA P0 | : | USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values) |
| OSHA Z-1 | : | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| OSHA Z-3 | : | USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts |
| ACGIH / TWA | : | 8-hour, time-weighted average |

SYNCRYSTAL Sapphire

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| 2.1 | 08/30/2022 | 102000002386 | Date of first issue: 03/21/2018 |

OSHA P0 / TWA : 8-hour time weighted average
OSHA Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / TWA : 8-hour time weighted average

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 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

Revision Date : 08/30/2022

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SAFETY DATA SHEET



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| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 12/05/2019 |
| 2.1 | 08/30/2022 | 102000002386 | Date of first issue: 03/21/2018 |

US / Z8