

## SYMIC C321

Version 1.0      Revision Date: 03/21/2018      SDS Number: 102000002391      Date of last issue: -  
 Date of first issue: 03/21/2018

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## SECTION 1. IDENTIFICATION

Product name : SYMIC C321

Product code : 035670MJ0

**Manufacturer or supplier's details**

Company name of supplier : ECKART GmbH

Address : Guentersthal 4  
Hartenstein 91235

Telephone : +499152770

Telefax : +499152777008

Emergency telephone : CHEMTREC: 800-424-9300  
CHEMTREC: 1-703-527-3387 (International)

GBK Gefahrgut Buero GmbH, Ingelheim, Germany:  
 From outside US: (001) 352-323-3500  
 (First call in English, response in your language is possible)  
 US & Canada (toll free):1-800-5355-053

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with 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)
Fluorphlogopite (Mg <sub>3</sub> K[AlF <sub>2</sub> O(SiO <sub>3</sub> ) <sub>3</sub> ])	12003-38-2	>= 50 - < 70

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Titanium oxide (TiO <sub>2</sub> )	13463-67-7	>= 30 - < 50
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1	>= 1 - < 5

**SECTION 4. FIRST AID MEASURES**

General advice : No hazards which require special first aid measures.

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.

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.

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## SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
- 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

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

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		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (Total dust)	10 mg/m3	OSHA P0
		TWA	10 mg/m3 (Titanium dioxide)	ACGIH
Iron oxide (Fe2O3)	1309-37-1	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/m3	OSHA Z-3
		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable fraction)	5 mg/m3	ACGIH
		TWA (Fumes)	10 mg/m3	OSHA Z-1
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (dust and fume)	5 mg/m3 (Iron)	NIOSH REL
		TWA (Fumes)	10 mg/m3	OSHA P0
Fluorphlogopite (Mg3K[AlF2O(SiO3)3])	12003-38-2	TWA	2.5 mg/m3 (Fluorine)	OSHA Z-1
		TWA	2.5 mg/m3 (Fluorine)	OSHA Z-1
		TWA	2.5 mg/m3 (Fluorine)	ACGIH
		TWA	2.5 mg/m3 (Fluorine)	ACGIH

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		TWA (Respirable fraction)	1 mg/m <sup>3</sup> (Aluminum)	ACGIH
		TWA	2.5 mg/m <sup>3</sup> (Fluorine)	OSHA P0
		TWA	2.5 mg/m <sup>3</sup> (Fluorine)	OSHA P0
Titanium oxide (TiO <sub>2</sub> )	13463-67-7	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-3
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Total dust)	10 mg/m <sup>3</sup>	OSHA P0
		TWA	10 mg/m <sup>3</sup> (Titanium dioxide)	ACGIH
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-3
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable fraction)	5 mg/m <sup>3</sup>	ACGIH
		TWA (Fumes)	10 mg/m <sup>3</sup>	OSHA Z-1
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-1
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z-1

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		TWA (dust and fume)	5 mg/m <sup>3</sup> (Iron)	NIOSH REL
		TWA (Fumes)	10 mg/m <sup>3</sup>	OSHA P0

**Biological occupational exposure limits**

Ingredients	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Fluorophlogopite (Mg <sub>3</sub> K[AlF <sub>2</sub> O(SiO <sub>3</sub> ) <sub>3</sub> ])	12003-38-2	Fluoride	Urine	Prior to shift (16 hours after exposure ceases)	3 mg/g	ACGIH BEI
		Fluoride	Urine	End of shift (As soon as possible after exposure ceases)	10 mg/g	ACGIH BEI
		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
Fluorophlogopite (Mg <sub>3</sub> K[AlF <sub>2</sub> O(SiO <sub>3</sub> ) <sub>3</sub> ])	12003-38-2	Fluoride	Urine	Prior to shift (16 hours after exposure ceases)	3 mg/g	ACGIH BEI
		Fluoride	Urine	End of shift (As soon as possible after exposure ceases)	10 mg/g	ACGIH BEI

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				exposure ceases)		
		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**

Eye protection : Safety glasses  
 Hygiene measures : General industrial hygiene practice.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : powder  
 Color : No data available  
 Odor : odorless  
 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) : 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  
 Solubility(ies) : No data available

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Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available

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**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. Dust may form explosive mixture in air.
Conditions to avoid	:	No data available

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Not classified based on available information.

**Ingredients:****Titanium oxide (TiO<sub>2</sub>):**

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 6.8 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (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.

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**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 (TiO<sub>2</sub>)                      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****Ingredients:****Fluorophlogopite (Mg<sub>3</sub>K[AIF<sub>2</sub>O(SiO<sub>3</sub>)<sub>3</sub>]):**

Remarks: No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

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**Other adverse effects**

No data available

**Ingredients:****Fluorophlogopite (Mg<sub>3</sub>K[AlF<sub>2</sub>O(SiO<sub>3</sub>)<sub>3</sub>]):**

Additional ecological information : No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : In accordance with local and national regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
In accordance with local and national regulations.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations**

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

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

Not applicable for product as supplied.

**Domestic regulation**

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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

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**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

**US State Regulations****Massachusetts Right To Know**

Titanium oxide (TiO <sub>2</sub> )	13463-67-7
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1

**Pennsylvania Right To Know**

Fluorophlogopite (Mg <sub>3</sub> K[AlF <sub>2</sub> O(SiO <sub>3</sub> ) <sub>3</sub> ])	12003-38-2
Titanium oxide (TiO <sub>2</sub> )	13463-67-7
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1

**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](http://www.P65Warnings.ca.gov).



WARNING: This product can expose you to chemicals including Titanium oxide (TiO<sub>2</sub>), which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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**California List of Hazardous Substances**

Fluorophlogopite (Mg <sub>3</sub> K[AlF <sub>2</sub> O(SiO <sub>3</sub> ) <sub>3</sub> ])	12003-38-2
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1

**California Permissible Exposure Limits for Chemical Contaminants**

Fluorophlogopite (Mg <sub>3</sub> K[AlF <sub>2</sub> O(SiO <sub>3</sub> ) <sub>3</sub> ])	12003-38-2
Titanium oxide (TiO <sub>2</sub> )	13463-67-7
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1

**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)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA P0	: USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
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
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	: 8-hour time weighted average
OSHA Z-1 / TWA	: 8-hour time weighted average

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

AICS - Australian Inventory of Chemical Substances; 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; 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

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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.

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