

**BYK-331**

Version 5

Revision Date 06/13/2022

Print Date 09/29/2022

**SECTION 1. IDENTIFICATION**

Product name : BYK-331

**Manufacturer or supplier's details**

Company : BYK USA Inc.  
524 South Cherry Street  
Wallingford CT 06492

Telephone : (203) 265-2086

Visit our web site : [www.byk.com](http://www.byk.com)

E-mail address : [BRIEF.BYK.NAFTA@altana.com](mailto:BRIEF.BYK.NAFTA@altana.com)

Emergency telephone : 203-265-2086; CHEMTREC 1-800-424-9300 / +1  
number 703-527-3887

**Recommended use of the chemical and restrictions on use**

Recommended use : Surface Additive

Restrictions on use : Refer to Section 15 for any restrictions that may apply

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Reproductive toxicity : Category 2

**GHS label elements**

Hazard pictograms :



Signal word : Warning

Hazard statements : H361f Suspected of damaging fertility.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

**Storage:**  
P405 Store locked up.

**Disposal:**  
P501 Dispose of contents/ container to an approved waste

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disposal plant.

**Other hazards**

None known.

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

Substance / Mixture : Mixture

Chemical nature : Polyether modified polydimethylsiloxane

**Hazardous components**

Component	CAS-No.	Concentration (%)
Octamethylcyclotetrasiloxane	556-67-2	>= 0.1 - < 1

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
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 : Remove contaminated clothing. Wash thoroughly with soap and water.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Induce vomiting immediately and call a physician.  
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.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : No information available.

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**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Cool closed containers exposed to fire with water spray.  
Will not explode on mechanical impact.  
  
Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides  
silicone compounds  
formaldehyde
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.

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Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Keep away from oxidizing agents.

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

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	US WEEL

**Engineering measures** : Use with local exhaust ventilation.

**Personal protective equipment**

Respiratory protection : Not necessary.  
If handling heated or misted product in a poorly ventilated area, wear a properly fitted respirator (NIOSH) during exposure.

In the case of vapour formation use a respirator with an approved filter.

Hand protection  
Material : Neoprene gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: liquid
Colour	: light yellow
Odour	: not significant
Odour Threshold	: No data available
pH	: 7, Concentration: 10 % (68 °F (20 °C)) Method: Universal pH-value indicator
Melting point/range	: < 32 °F (< 0 °C) Method: derived
Initial boiling point	: > 392 °F (> 200 °C) Method: derived
Vapour pressure	: < 0.01 kPa Method: derived
Flash point	: > 212.00 °F (> 100.00 °C) Method: 49 (Pensky-Martens)
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Evaporation rate	: No data available
Relative vapour density	: No data available
Relative Density/Specific Gravity	: No data available
Density	: 1.0350 g/cm <sup>3</sup> (68.00 °F (20.00 °C)) Method: 4 (20°C oscillating U-tube)
Bulk density	: Not applicable
Solubility(ies) Water solubility	: completely miscible
Solubility in other solvents	: No data available

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Partition coefficient: n-octanol/water : No data available

Ignition temperature : > 392.00 °F (> 200.00 °C)  
Method: DIN 51 794/ DIN prEN 14 522

Thermal decomposition : No data available

Viscosity  
Viscosity, dynamic : 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 : No decomposition if stored and applied as directed.

Conditions to avoid : No data available

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : None expected

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Skin contact  
Inhalation  
Eyes  
Ingestion  
Skin Absorption

**Acute toxicity****Product:**

Acute oral toxicity : LD50 (Rat): 8,900.000000 mg/kg  
Method: OECD Test Guideline 401

**Skin corrosion/irritation****Product:**

Species: Rabbit  
Method: OECD Test Guideline 404

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Result: No skin irritation

**Components:****556-67-2 Octamethylcyclotetrasiloxane:**

Species: Rabbit

Result: slight irritation

**Serious eye damage/eye irritation****Product:**

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

**Components:****556-67-2 Octamethylcyclotetrasiloxane:**

Species: Rabbit

Result: Mild eye irritation

**Respiratory or skin sensitisation****Product:**

Remarks: No data available

**Components:****556-67-2 Octamethylcyclotetrasiloxane:**

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Does not cause skin sensitisation.

GLP: yes

**Germ cell mutagenicity****Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

**Carcinogenicity****Product:**

Remarks: No data available

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed

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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 component 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****Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

**STOT - single exposure****Product:**

Remarks: No data available

**STOT - repeated exposure****Product:**

Remarks: No data available

**Repeated dose toxicity****Product:**

Remarks: Inhalation (300 ppm)/ingestion (1600 mg/kg) dosages of Octamethylcyclotetrasiloxane has caused liver weight increases in laboratory animals. Liver weight changes via inhalation were reversible. A reproductive study (rats, inhalation: 700 ppm/70 days) showed a statistically significant reduction in mean litter size and implantation sites. The relevance of this data to humans is uncertain.

**Aspiration toxicity****Product:**

No data available

**Experience with human exposure****Product:**

Inhalation:

Symptoms:

High concentrations of heated vapors may irritate the respiratory tract and mucous membranes.



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Skin contact:

Symptoms:

Contact may cause irritation.

Eye contact:

Symptoms:

Contact may cause irritation.

Ingestion:

Symptoms:

Ingestion may irritate the digestive tract.

**Further information****Product:**

Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Toxicity to fish

:

Remarks: No data available

**Persistence and degradability****Product:**

Biodegradability

:

Remarks: No data available

**Bioaccumulative potential****Product:**

Bioaccumulation

:

Remarks: No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

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).

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Additional ecological information : There is no data available for this product.

No data available

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

EPA Hazardous Waste Code(s) : Not applicable.

Waste from residues : Dispose of in accordance with applicable local/municipal, state/provincial and federal regulations.

Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

UN/ID No. : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(Siloxanes)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964

**IMDG-Code**

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(Siloxanes)  
: )  
Class : 9  
Packing group : III  
Labels : 9

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EmS Code : F-A, S-F  
Marine pollutant : yes  
Remarks : IMDG Code segregation group - none

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

Not applicable for product as supplied.

**National Regulations****49 CFR**

UN/ID/NA number : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(Siloxanes)  
Class : 9  
Packing group : III  
Labels : CLASS 9  
ERG Code : 171  
Marine pollutant : no  
Container sizes: 55 gallon drums, 5 or 6-gallon pails, 2oz/16oz samples

**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****US. EPA CERCLA Hazardous Substances (40 CFR 302)**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 - Emergency Release Notification**

Calculated RQ exceeds reasonably attainable upper limit.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III  
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 311/312 Hazards** : Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling of chemicals (i.e. GHS). Please refer to Section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

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

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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 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 Intermediate or Final VOC's (40 CFR 60.489).

Non-volatile (Wt)

: 98 - 100 %  
Method: 51 (60min/105°C/ 1g)  
DIN EN ISO 3251  
Non-volatile information is not a specification.

**Massachusetts Right To Know**

Propylene oxide	75-56-9
Acetaldehyde	75-07-0
Hydrogen Chloride	7647-01-0
Formaldehyde	50-00-0
Ethylene oxide	75-21-8
1,4-Dioxane	123-91-1

**Pennsylvania Right To Know**


Polyether modified polydimethylsiloxane	-
Polyglycol	-
Isopropanol	67-63-0

**New Jersey Right To Know**

Polyether modified polydimethylsiloxane	-
Polyglycol	-

**New Jersey Trade Secret Registry Number for the product (NJ TSRN)** : 800963-5196

**California Prop. 65**

 **WARNING:** This product can expose you to chemicals including Propylene oxide, Acetaldehyde, Formaldehyde, Ethylene oxide, 1,4-Dioxane, which is/are known to the State of California to cause cancer, and Ethylene oxide, Methanol, Chloromethane, 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](http://www.P65Warnings.ca.gov).

**The components of this product are reported in the following inventories:**

TSCA : We certify that all of the components of this product are either

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listed on the TSCA Inventory or are not subject to the notification requirements per 40 CFR 720.30(h).

TSCA Inventory Active List : All components of this product are listed active and/or are exempt

DSL : We certify that all of the components of this product are listed on the DSL.

**SECTION 16. OTHER INFORMATION**

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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 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.