

BYK-377

Version 5

Revision Date 05/12/2022

Print Date 09/29/2022

SECTION 1. IDENTIFICATION

Product name : BYK-377

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

E-mail address : 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 : H361 Suspected of damaging fertility or the unborn child.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.

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 disposal plant.

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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

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 : Remove to fresh air. Administer artificial respiration if necessary. Get medical aid as soon as possible.
- 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 : Immediately flush with plenty of water for at least 20 minutes. Get medical aid.
- 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 : Do not induce vomiting; aspiration hazard. Dilute with 1-2 glasses of water. Get medical aid. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs.
- Induce vomiting immediately and call a physician.
Keep respiratory tract clear.

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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.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Foam
Carbon dioxide (CO₂)
Dry chemical

Foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing
media : No information available.

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 : Keep away from heat and sources of ignition.
Keep away from oxidizing agents.

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 : In the event of fire, wear self-contained breathing apparatus.

Wear self-contained breathing apparatus for firefighting if
necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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- | | |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Wear protective equipment: goggles, chemically resistant clothing and gloves, and appropriate respirator if in a confined area. |
| | : Use personal protective equipment. |
| Environmental precautions | : Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods. |
| | 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 | : Stop leak. Dike and contain spill.
Pump into salvage tanks and/or absorb with suitable material.
Use sparkless shovels to remove material. |
| | 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 | : Avoid contact with skin and eyes.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Handle as an industrial chemical.
Keep container tightly closed. |
| | Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
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 in a dry, cool and well-ventilated place.
Keep product and empty container away from heat and sources of ignition.
Take measures to prevent the build up of electrostatic charge. |
| | 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. |

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

Contains no substances with occupational exposure limit values.

Engineering measures : Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : 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

: Safety Glasses
Goggles
Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection

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

Hygiene measures

: Clean long legged, long sleeved work clothes.
Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : light brown

Odour : not significant

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Odour Threshold	: No data available
pH	: 7, Concentration: 1 % (68 °F (20 °C)) Method: Universal pH-value indicator
Melting point/range	: < 32 °F (< 0 °C) Method: derived
Initial boiling point	: > 212 °F (> 100 °C) Method: derived
Vapour pressure	: < 1 hPa (ca. ()) 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	: 1.0200 g/cm ³ (68.00 °F (20.00 °C)) Method: 4 (20°C oscillating U-tube)
Bulk density	: Not applicable
Solubility(ies) Water solubility	: immiscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: > 392 °F (> 200 °C) Method: DIN 51 794/ DIN prEN 14 522
Thermal decomposition	: No data available

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Viscosity
Viscosity, dynamic : 1,148.000 mPa.s (68.00 °F (20.00 °C))
Method: P/K 20°C

Viscosity, kinematic : No data available

Surface tension : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.
No decomposition if stored and applied as directed.

Chemical stability : Stable; polymerization will not occur
No decomposition if stored and applied as directed.

Possibility of hazardous reactions : No data available
No decomposition if stored and applied as directed.

Conditions to avoid : None known.
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
Skin Absorption
Inhalation
Eyes
Ingestion

Acute toxicity**Product:**

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

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Skin corrosion/irritation**Product:**

Remarks: No data available

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

Species: Rabbit

Result: slight irritation

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

Remarks: No data available

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 human carcinogen by IARC.

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

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

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

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.

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.

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Aspiration toxicity**Product:**

No data available

Experience with human exposure**Product:**

Inhalation:

Symptoms:

High concentrations of vapors resulting from the product being heated, misted or sprayed may cause irritation of the respiratory tract, mucous membranes, and CNS depression.

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

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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).

Additional ecological information

: No data available

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

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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

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)**

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

SARA 304 - Emergency Release Notification

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

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

This material does not contain any components with a SARA 302 RQ.

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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.

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).

Non-volatile (Wt) : 96 - 100 %
Method: 51 (60min/105°C/ 1g)
DIN EN ISO 3251
Non-volatile information is not a specification.

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Polysiloxanes -
-

New Jersey Right To Know

Polysiloxanes -
-

New Jersey Trade Secret Registry Number for the product (NJ TSRN) : 800963-5270

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

TSCA : We certify that all of the components of this product are either listed on the TSCA Inventory or are not subject to the

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notification requirements per 40 CFR 720 30(h).

Section 4 / 12(b)

: Not applicable

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.