

BYK-220 SN

Version 1

Revision Date 04/01/2025

Print Date 04/30/2026

SECTION 1. IDENTIFICATION

Product name : BYK-220 SN

Manufacturer or supplier's detailsCompany : BYK USA LLC
524 South Cherry Street
Wallingford CT 06492

Telephone : (203) 265-2086

Visit our web site : www.byk.comE-mail address : BRIEF.BYK.NAFTA@altana.comEmergency telephone number : 203-265-2086; CHEMTREC 1-800-424-9300 / +1
703-527-3887**Recommended use of the chemical and restrictions on use**

Recommended use : Wetting & Dispersing Additive

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

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 3

Skin irritation : Category 2

Eye irritation : Category 2A

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Specific target organ toxicity - single exposure : Category 3 (Respiratory system, Central nervous system)

Specific target organ toxicity - repeated exposure (Inhalation) : Category 1 (Respiratory system)

Aspiration hazard : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

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- Hazard statements : H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled.
- Precautionary statements : **Prevention:**
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
 Chemical nature : Solution of a lower molecular weight unsaturated acidic polycarboxylic acid polyester with a polysiloxane copolymer

Hazardous components

Component	CAS-No.	Concentration (%)
Solvent naphtha, petroleum, light aromatic	64742-95-6	>= 30 - < 60
Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids	91001-64-8	>= 30 - < 60
Maleic anhydride	108-31-6	>= 1 - < 3

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
 Show this safety data sheet to the doctor in attendance.
 Symptoms of poisoning may appear several hours later.
 Do not leave the victim unattended.

If inhaled : Call a physician or poison control centre immediately.
 If unconscious, place in recovery position and seek medical advice.

In case of skin contact : If skin irritation persists, call a physician.
 If on skin, rinse well with water.
 If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.
 Remove contact lenses.
 Protect unharmed eye.
 Keep eye wide open while rinsing.
 If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
 Do NOT induce vomiting.
 Do not give milk or alcoholic beverages.

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Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- | | | |
|---|---|---|
| Suitable extinguishing media | : | Alcohol-resistant foam
Carbon dioxide (CO ₂)
Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during firefighting | : | Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : | Carbon oxides
Silicon oxides |
| 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.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers. |
| 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.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |
| 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 | : | Neutralize with chalk, alkali solution or ammonia.
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). |

SECTION 7. HANDLING AND STORAGE

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- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Conditions for safe storage : No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Maleic anhydride	108-31-6	TWA	0.25 ppm 1 mg/m ³	OSHA Z-1
Maleic anhydride		TWA	0.25 ppm 1 mg/m ³	NIOSH REL
Maleic anhydride		TWA (Inhalable fraction and vapor)	0.01 mg/m ³	ACGIH

Hazardous components without workplace control parameters

Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- Hand protection
Material : Nitrile rubber
Break through time : > 480 min
- 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

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Skin and body protection	: Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Hygiene measures	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place. : 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 yellow
Odour	: characteristic
Odour Threshold	: No data available
pH	: 3.5, Concentration: 1 % (68 °F (20 °C)) Method: DIN 19268
Melting point/ range	: < 32 °F (< 0 °C) Method: derived
Initial boiling point	: 329 °F (165 °C) Method: derived
Vapour pressure	: 5 hPa (ca. 68 °F (20 °C)) Method: derived
Flash point	: 124 °F (51 °C) Method: 48 (Abel-Pensky) DIN 51755
Upper explosion limit	: 7.5 %(V)
Lower explosion limit	: 1 %(V)
Evaporation rate	: No data available
Relative vapour density	: No data available
Density	: 0.96 g/cm ³ (68 °F (20 °C)) Method: 4 (20°C oscillating U-tube)
Solubility(ies) Water solubility	: immiscible
Ignition temperature	: > 392 °F (> 200 °C) Method: M0062 (Analytics Wesel)

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Viscosity
Viscosity, dynamic : 18 mPa.s
Method: P/K 20°C

Surface tension : 24 mN/m, ring dynamometer

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.
Vapours may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.
Incompatible materials : Strong oxidizing agents
Hazardous decomposition products : No decomposition if stored and applied as directed.

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

Inhalation
Ingestion
Eye contact
Skin contact

Acute toxicity**Product:**

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

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

Components:**64742-95-6 Solvent naphtha, petroleum, light aromatic:**

Acute oral toxicity : LD50 (Rat): > 4,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 3670 ppm
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): > 3,480 mg/kg

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91001-64-8 Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids:

Acute oral toxicity : LD50 Oral (Rat, male and female): 8,295 mg/kg
Method: OECD Test Guideline 401
GLP: yes

108-31-6 Maleic anhydride:

Acute oral toxicity : LD50 (Rat, male and female): 1,090 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): 398 mg/kg

LD50 (Rabbit, female): 2,620 mg/kg
GLP: No information available.

Skin corrosion/irritation**Product:**

Remarks: May cause skin irritation and/or dermatitis.

Components:**64742-95-6 Solvent naphtha, petroleum, light aromatic:**

Species: Rabbit
Result: Moderate skin irritation

91001-64-8 Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

108-31-6 Maleic anhydride:

Species: Rabbit
Method: No information available.
Result: Corrosive to skin
GLP: no

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

Remarks: Causes serious eye irritation.

Components:**64742-95-6 Solvent naphtha, petroleum, light aromatic:**

Species: Rabbit
Result: Eye irritation

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91001-64-8 Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids:

Species: Rabbit

Result: Eye irritation

Assessment: Irritating to eyes.

GLP: yes

108-31-6 Maleic anhydride:

Species: Rabbit

Result: Corrosive to eyes

GLP: yes

Respiratory or skin sensitisation**Product:**

Remarks: Causes sensitisation.

Components:**64742-95-6 Solvent naphtha, petroleum, light aromatic:**

Test Type: Maximisation Test

Exposure routes: Dermal

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Does not cause skin sensitisation.

91001-64-8 Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids:

Test Type: Mouse Local Lymph Node assay (LLNA)

Species: Mouse

Assessment: The product is a skin sensitiser, sub-category 1A.

Method: OECD Test Guideline 429

Result: The product is a skin sensitiser, sub-category 1A.

GLP: yes

108-31-6 Maleic anhydride:

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Causes sensitisation.

GLP: yes

Germ cell mutagenicity**Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

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Components:**91001-64-8 Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids:**

- Genotoxicity in vitro
- : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
 - : Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes
 - : Test Type: In vitro mammalian cell gene mutation test (mouse lymphoma)

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

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.

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

Components:

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91001-64-8 Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids:

Effects on fertility

:

Species: Rat
Sex: male and female
Application Route: Oral
NOAEL: 1,000 mg/kg,
F1: 1,000 mg/kg,
Method: OECD Test Guideline 422
GLP: yes

Effects on foetal
development

:

Species: Rat
Application Route: Oral
1,000 mg/kg
1,000 mg/kg
Method: OECD Test Guideline 422
GLP: yes

STOT - single exposure**Product:**

Remarks: No data available

STOT - repeated exposure**Product:**

Remarks: No data available

Repeated dose toxicity**Product:**

Remarks: No data available

Components:**91001-64-8 Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids:**

Species: Rat, male and female
NOAEL: 300 mg/kg
Application Route: Oral
Method: OECD Test Guideline 422
GLP: yes
Target Organs: Blood

Aspiration toxicity**Product:**

No data available

Components:**64742-95-6 Solvent naphtha, petroleum, light aromatic:**

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The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Further information
Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION
Ecotoxicity
Product:

Toxicity to fish :
Remarks: No data available

Toxicity to daphnia and other :
aquatic invertebrates : 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).

Additional ecological : No data available
information

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : 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.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

- UN/ID No. : UN 1268
Proper shipping name : Petroleum distillates, n.o.s.
Class : 3
Packing group : III
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

- UN number : UN 1268
Proper shipping name : PETROLEUM DISTILLATES, N.O.S.
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-E
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 1268
Proper shipping name : Petroleum distillates, n.o.s.
Class : 3
Packing group : III
Labels : FLAMMABLE LIQUID
ERG Code : 128

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Marine pollutant : no

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.

SARA 313 : This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Maleic anhydride	108-31-6	1 %
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Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

Maleic anhydride	108-31-6	1 %
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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).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489):

Maleic anhydride	108-31-6	1 %
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Non-volatile (Wt) : 52 %

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 Method: 22 (10min/150°C)
 DIN EN ISO 3251

Massachusetts Right To Know

Maleic anhydride	108-31-6
Propylene oxide	75-56-9

Pennsylvania Right To Know

Solvent naphtha, petroleum, light aromatic	64742-95-6
Fatty acids, sunflower-oil, conjugated, polymers with maleic anhydride, 2-phenoxyethanol and tall oil fatty acids	91001-64-8
Oxirane, Me, polymer with oxirane monobutyl ether (polyalkylene glycol)	9038-95-3
Maleic anhydride	108-31-6
Cumene	98-82-8
Naphthalene	91-20-3
Ethyl benzene	100-41-4

New Jersey Right To Know

New Jersey Trade Secret Registry Number for the product (NJ TSRN) : 800963-6295

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Cumene, Naphthalene, Ethyl benzene, Propylene oxide, Benzene, Acetaldehyde, Formaldehyde, Ethylene oxide, 1,4-Dioxane, which is/are known to the State of California to cause cancer, and Toluene, Benzene, 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.

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

TSCA	: All substances listed as active on the TSCA inventory
Section 5a	: No substances are subject to a Significant New Use Rule.
Section 4 / 12(b)	: No substances are subject to TSCA 12(b) export notification requirements.
DSL	: The following component(s) is/are not listed on the DSL:
CEPA Category	: Polymer
Weight percent	: 42 %
NSN Filed	: Schedule 9
Max. NSN Required	: Schedule 11

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.