

**BYK A-GS-446**

Version 1

Revision Date 07/21/2020

Print Date 01/06/2026

**SECTION 1. IDENTIFICATION**

Product name : BYK A-GS-446

**Manufacturer or supplier's details**Company : BYK USA LLC  
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 : oilfield

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

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

Flammable liquids : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Carcinogenicity : Category 1B

Reproductive toxicity : Category 2

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

Aspiration hazard : Category 1

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H227 Combustible liquid.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

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H336 May cause drowsiness or dizziness.  
 H350 May cause cancer.  
 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.  
 P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 P264 Wash skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 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.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
 P331 Do NOT induce vomiting.  
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
 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.

**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**

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 12 %

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

Substance / Mixture : Mixture  
 Chemical nature : phenol-formaldehyde resin

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**Hazardous components**

Component	CAS-No.	Concentration (%)
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	>= 24 - < 26
1-Hexanol, 2-ethyl-, manuf. of, by-products from, distn. residues	68609-68-7	>= 14 - < 15
Naphthalenesulfonic acid, bis(1-methylethyl)-, compd. with cyclohexanamine (1:1)	68425-61-6	>= 13 - < 14
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling	68477-31-6	>= 7 - < 8
Xylene	1330-20-7	>= 1 - < 2
Naphthalene	91-20-3	>= 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.  
Symptoms of poisoning may appear several hours later.  
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.  
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.  
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 : Carbon dioxide (CO<sub>2</sub>)
- 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 : Carbon monoxide, carbon dioxide and unburned

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products

hydrocarbons (smoke).

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.

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

: 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).  
 Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

Advice on safe handling

: Avoid formation of aerosol.  
 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.  
 Provide sufficient air exchange and/or exhaust in work rooms.  
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage

: No smoking.  
 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.

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

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	ACGIH
Xylene	1330-20-7	TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA Z-1
Xylene		STEL	150 ppm 655 mg/m <sup>3</sup>	OSHA P0
Xylene		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA P0
Xylene		TWA	100 ppm	ACGIH
Xylene		STEL	150 ppm	ACGIH
Naphthalene	91-20-3	TWA	10 ppm	ACGIH
Naphthalene		TWA	10 ppm 50 mg/m <sup>3</sup>	OSHA Z-1
Naphthalene		TWA	10 ppm 50 mg/m <sup>3</sup>	OSHA P0
Naphthalene		STEL	15 ppm 75 mg/m <sup>3</sup>	OSHA P0

**Hazardous components without workplace control parameters**

Solvent naphtha (petroleum), heavy aromatic	64742-94-5	TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	ACGIH
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	ACGIH
Xylene	1330-20-7	TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA Z-1
Xylene		STEL	150 ppm 655 mg/m <sup>3</sup>	OSHA P0
Xylene		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA P0
Xylene		TWA	100 ppm	ACGIH
Xylene		STEL	150 ppm	ACGIH
Naphthalene	91-20-3	TWA	10 ppm	ACGIH
Naphthalene		TWA	10 ppm 50 mg/m <sup>3</sup>	OSHA Z-1
Naphthalene		TWA	10 ppm 50 mg/m <sup>3</sup>	OSHA P0
Naphthalene		STEL	15 ppm	OSHA P0

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75 mg/m3

**Personal protective equipment**

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- Hand protection  
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  
Wear face-shield and protective suit for abnormal processing problems.
- 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.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : liquid
- Colour : brown
- Odour : aromatic
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Initial boiling point and boiling range : No data available
- Vapour pressure : No data available
- Flash point : 149.9 °F (65.5 °C)  
Method: closed cup
- Upper explosion limit : Upper explosion limit  
7 %(V)
- Lower explosion limit : Lower explosion limit  
1 %(V)
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Relative vapour density : > 1
- Relative Density/Specific Gravity : No data available

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Density : 0.9894 g/cm<sup>3</sup> (68 °F (20 °C))Solubility(ies)  
Water solubility : negligible

Solubility in other solvents : No data available

Ignition temperature : No data available

Thermal decomposition : No data available

Viscosity  
Viscosity, dynamic : 1.23 mPa.s (77 °F (25 °C))

Viscosity, kinematic : No data available

Surface tension : No data available

**SECTION 10. STABILITY AND REACTIVITY**Reactivity : Stable  
No decomposition if stored and applied as directed.Chemical stability : Stable  
The product is chemically stable.Possibility of hazardous reactions : No decomposition if stored and applied as directed.  
Vapours may form explosive mixture with air.Conditions to avoid : Keep away from open flames, hot surfaces and sources of ignition.  
Heat, flames and sparks.

Incompatible materials : Incompatible with strong bases and oxidizing agents.

Hazardous decomposition products : No data available

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Acute toxicity****Product:**Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : &gt; 200 mg/l

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Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

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

**Components:****1330-20-7 Xylene:**

Acute oral toxicity : LD50 (Rat): 4,300 mg/kg  
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)  
GLP: no

Acute inhalation toxicity : LC50 (Rat): 5000 ppm  
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 1,700 mg/kg  
  
LD50 (Rabbit): > 4,200 mg/kg  
GLP: No information available.

**91-20-3 Naphthalene:**

Acute oral toxicity : LD50 (Mouse): 316 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 340 ppm  
Exposure time: 1.00 h

Acute dermal toxicity : LD50 (Rat): > 2,500 mg/kg

**64742-94-5 Solvent naphtha (petroleum), heavy aromatic:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 100 mg/l

Acute dermal toxicity : LD50 (Rabbit): > 2,500 mg/kg

**1330-20-7 Xylene:**

Acute oral toxicity : LD50 (Rat): 4,300 mg/kg  
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)  
GLP: no

Acute inhalation toxicity : LC50 (Rat): 5000 ppm  
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 1,700 mg/kg  
  
LD50 (Rabbit): > 4,200 mg/kg  
GLP: No information available.

**91-20-3 Naphthalene:**

Acute oral toxicity : LD50 (Mouse): 316 mg/kg

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Acute inhalation toxicity : LC50 (Rat): > 340 ppm  
Exposure time: 1.00 h

Acute dermal toxicity : LD50 (Rat): > 2,500 mg/kg

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

Remarks: May cause skin irritation in susceptible persons.

**Components:****1330-20-7 Xylene:**

Species: Rabbit

Result: Moderate skin irritation

**91-20-3 Naphthalene:**

Species: Rabbit

Method: Draize Test

Result: Severe skin irritation

**64742-94-5 Solvent naphtha (petroleum), heavy aromatic:**

Species: Rabbit

Result: Moderate skin irritation

**1330-20-7 Xylene:**

Species: Rabbit

Result: Moderate skin irritation

**91-20-3 Naphthalene:**

Species: Rabbit

Method: Draize Test

Result: Severe skin irritation

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

Remarks: May cause irreversible eye damage.

**Components:****1330-20-7 Xylene:**

Species: Rabbit

Result: Eye irritation

**91-20-3 Naphthalene:**

Species: Rabbit

Result: Mild eye irritation

Method: Draize Test

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**64742-94-5 Solvent naphtha (petroleum), heavy aromatic:**

Species: Rabbit

Result: Eye irritation

**1330-20-7 Xylene:**

Species: Rabbit

Result: Eye irritation

**91-20-3 Naphthalene:**

Species: Rabbit

Result: Mild eye irritation

Method: Draize Test

**Respiratory or skin sensitisation**
**Components:**
**64742-94-5 Solvent naphtha (petroleum), heavy aromatic:**

Test Type: Maximisation Test

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Not a skin sensitizer.

GLP: No information available.

**Carcinogenicity**

<b>IARC</b>	Group 2B: Possibly carcinogenic to humans	
	Naphthalene	91-20-3
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
<b>NTP</b>	Reasonably anticipated to be a human carcinogen	
	Naphthalene	91-20-3

**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**

No data available

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**Persistence and degradability**

No data available

**Bioaccumulative potential**

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 information : No data available

**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 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(Solvent naphtha)

Class : 9

Packing group : III

Labels : Miscellaneous

Packing instruction (cargo aircraft) : 964

Packing instruction (passenger aircraft) : 964

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**IMDG-Code**

UN number : UN 3082  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
 N.O.S.  
 (Solvent naphtha)  
 : )  
 Class : 9  
 Packing group : III  
 Labels : 9  
 EmS Code : F-A, S-F  
 Marine pollutant : yes

**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 : NA 1993  
 Proper shipping name : Combustible liquid, n.o.s.  
 (Solvent naphtha)  
 Class : CBL  
 Packing group : III  
 Labels : Combustible liquid  
 Marine pollutant : yes

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

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Xylene	1330-20-7	100	5000

**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 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 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.

Xylene	1330-20-7	1.9 %
Naphthalene	91-20-3	.5 %

**Clean Air Act**

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

Xylene	1330-20-7	1.9 %
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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 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Xylene	1330-20-7	1.9 %
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**Massachusetts Right To Know**

Xylene	1330-20-7
Formaldehyde	50-00-0

**Pennsylvania Right To Know**

Solvent naphtha (petroleum), heavy aromatic	64742-94-5
1-Hexanol, 2-ethyl-, manuf. of, by-products from, distn. residues	68609-68-7
Naphthalenesulfonic acid, bis(1-methylethyl)-, compd. with cyclohexanamine (1:1)	68425-61-6
Benzenesulfonic acid, 4-dodecyl-, compd. with cyclohexanamine (1:1)	14356-38-8
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling	68477-31-6
Phenolic Resin	-
Solvent naphtha (petroleum), heavy aromatic	64742-94-5
Phenolic Resin	-
Phenolic Resin	-
Xylene	1330-20-7
Naphthalene	91-20-3
Formaldehyde	50-00-0

**New Jersey Right To Know**

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Solvent naphtha (petroleum), heavy aromatic	64742-94-5
1-Hexanol, 2-ethyl-, manuf. of, by-products from, distn. residues	68609-68-7
Naphthalenesulfonic acid, bis(1-methylethyl)-, compd. with cyclohexanamine (1:1)	68425-61-6
Benzenesulfonic acid, 4-dodecyl-, compd. with cyclohexanamine (1:1)	14356-38-8
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling	68477-31-6
Xylene	1330-20-7
Naphthalene	91-20-3

**New Jersey Trade Secret Registry Number for the product (NJ TSRN)** : 800963-6023

**California Prop. 65**

**⚠ WARNING:** This product can expose you to chemicals including Naphthalene, Formaldehyde, 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).

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

TSCA	: On the inventory, or in compliance with the inventory
TSCA Inventory Active List	: All components of this product are listed active and/or are exempt
DSL	: On the inventory, or in compliance with the inventory
	:

**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.