BYK-W 909

SECTION 1. IDENTIFICATION

Product name : BYK-W 909

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 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

Serious eye damage : Category 1

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

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

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.
H351 Suspected of causing 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.
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.
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:
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 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P332 + P313 If skin irritation occurs: 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

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Solution of a boric acid ester

Hazardous components

Component	CAS-No.	Concentration (%)
Isobutanol	78-83-1	>= 58 - < 59
1-Methoxy-2-propanol	107-98-2	>= 29 - < 30
Boric acid ester	-	>= 10 - < 11
Xylene	1330-20-7	>= 1 - < 2
Ethyl benzene	100-41-4	>= 0.1 - < 1

The specific chemical identity/weight percent of proprietary ingredient(s) is a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled : Remove to fresh air. Administer artificial respiration if necessary. Get medical aid as soon as possible.

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.

If swallowed : Do not induce vomiting. Dilute with 1-2 glasses of water. Get medical aid.
Never give anything by mouth to an unconscious person.

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

Unsuitable extinguishing media : No information available.

Specific hazards during firefighting : Cool closed containers exposed to fire with water spray.
Will not explode on mechanical impact.

Hazardous combustion products	:	Carbon oxides
Further information	:	Keep away from heat and sources of ignition. Keep away from oxidizing agents.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Eliminate all sources of ignition. Ventilate area if indoors. Wear self-contained breathing apparatus and full protective clothing.
Environmental precautions	:	Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods.
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.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Harmful in contact with skin. Avoid contact with skin and eyes. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Handle as an industrial chemical. Keep container tightly closed.
Conditions for safe storage	:	Avoid exposure to excessive heat, light, and air for prolonged periods of time. 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.
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

Isobutanol	78-83-1	TWA	50 ppm	ACGIH
Isobutanol		TWA	100 ppm 300 mg/m3	OSHA Z-1
1-Methoxy-2-propanol	107-98-2	TWA	50 ppm	ACGIH
1-Methoxy-2-propanol		STEL	100 ppm	ACGIH
Xylene	1330-20-7	TWA	100 ppm 435 mg/m3	OSHA Z-1
Xylene		STEL	150 ppm 655 mg/m3	OSHA P0
Xylene		TWA	100 ppm 435 mg/m3	OSHA P0
Xylene		TWA	100 ppm	ACGIH
Xylene		STEL	150 ppm	ACGIH
Ethyl benzene	100-41-4	TWA	20 ppm	ACGIH
Ethyl benzene		TWA	100 ppm 435 mg/m3	OSHA Z-1
Ethyl benzene		TWA	100 ppm 435 mg/m3	OSHA P0
Ethyl benzene		STEL	125 ppm 545 mg/m3	OSHA P0

Hazardous components without workplace control parameters

Engineering measures : Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : Unless air monitoring demonstrates vapor/mist/dust levels are below the PEL/TLV wear a properly fitted respirator (NIOSH approved) or dust mask during exposure.

Hand protection
Material : Silver Shield gloves

Eye protection : Safety Glasses
Goggles

Skin and body protection : 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : colourless

Odour	:	alcohol-like
Odour Threshold	:	No data available
pH	:	5, Concentration: 1 % (68 °F (20 °C)) Method: Universal pH-value indicator
Melting point/freezing point	:	< 32 °F (< 0 °C) Method: derived
Initial boiling point and boiling range	:	223 °F (106 °C) (1,013 hPa) Method: derived
Vapour pressure	:	10 hPa (68.00 °F (20.00 °C)) Method: derived
Flash point	:	80.60 °F (27.00 °C) Method: 48 (Abel-Pensky)
Upper explosion limit	:	13.70 %(V)
Lower explosion limit	:	1.00 %(V)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Relative vapour density	:	No data available
Relative Density/Specific Gravity	:	No data available
Density	:	0.8500 g/cm3 (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 51794

Thermal decomposition	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Surface tension	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable; polymerization will not occur
Possibility of hazardous reactions	:	1-Methoxy-2-propanol may form peroxides of unknown stability. Vapours may form explosive mixture with air.
Conditions to avoid	:	Prolonged heat/light/air exposure Heat, flames and sparks.
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 : 3,240 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate : > 200 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 4,054 mg/kg
Method: Calculation method

Components:

78-83-1 Isobutanol:
Acute oral toxicity : LD50 (Rat): 2,500 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 8000 ppm
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 2,460 mg/kg

107-98-2 1-Methoxy-2-propanol:
Acute oral toxicity : LD50 (Rat, male and female): 4,016 mg/kg
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)
GLP: yes

Acute inhalation toxicity : LC50 (Rat): 1500 ppm

Acute dermal toxicity : LD50 (Rabbit): 13,000 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.

100-41-4 Ethyl benzene:
Acute oral toxicity : LD50 (Rat): 3,500 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 5,510 mg/kg

Skin corrosion/irritation

Product:

Remarks: No data available

Components:

78-83-1 Isobutanol:
Species: Rabbit
Result: Moderate skin irritation

107-98-2 1-Methoxy-2-propanol:
Species: Rabbit
Result: Moderate skin irritation

1330-20-7 Xylene:
Species: Rabbit
Result: Moderate skin irritation

100-41-4 Ethyl benzene:
Species: Rabbit
Result: Moderate skin irritation

Serious eye damage/eye irritation

Product:

Remarks: No data available

Components:

78-83-1 Isobutanol:
Species: Rabbit
Result: Eye irritation
Method: OECD Test Guideline 405
GLP: yes

107-98-2 1-Methoxy-2-propanol:
Species: Rabbit
Result: Eye irritation

1330-20-7 Xylene:
Species: Rabbit
Result: Eye irritation

100-41-4 Ethyl benzene:
Species: Rabbit
Result: Moderate eye irritation

Respiratory or skin sensitisation

Product:

Remarks: No data available

Components:

78-83-1 Isobutanol:
Test Type: Maximisation Test
Exposure routes: Dermal
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

107-98-2 1-Methoxy-2-propanol:
Test Type: Maximisation Test
Exposure routes: Dermal
Species: Guinea pig
Method: Directive 67/548/EEC, Annex V, B.6.
Result: Does not cause skin sensitisation.
GLP: yes

Carcinogenicity

IARC	Group 2B: Possibly carcinogenic to humans	
	Ethyl benzene	100-41-4
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.	

Repeated dose toxicity

Product:

Remarks: Absorption of ingredients (solvents) by inhalation and/or repeated skin contact has caused injury to liver, kidney, brain, respiratory system, blood, and/or bone marrow in laboratory animals
Animal studies have shown Xylene to cause fetotoxic effects at dosage levels at or near maternal toxicity levels.
Excessive inhalation of Xylene has caused hearing loss in laboratory animals. Hexane used in conjunction w/Xylene greatly increased this effect. Chronic skin contact w/Xylene has caused dermatitis. Ingestion of Ethanol can increase effects of overexposure to Xylene.
Isobutanol has shown positive results in an in vitro test for potential mutagenicity.
Ethylbenzene is an IARC Group 2B carcinogen based on animal studies (increased tumors in rats and mice).

Aspiration toxicity

Components:

78-83-1 Isobutanol:
No aspiration toxicity classification

Experience with human exposure

Product:

Inhalation:

Symptoms:	High concentrations of vapors may be irritating to the respiratory tract. May cause headaches, dizziness, nausea and vomiting. May cause CNS depression (drowsiness,

loss of coordination and fatigue).

Skin contact:

Symptoms: Contact will probably cause irritation. Absorption has caused same symptoms as inhalation.

Eye contact:

Symptoms: Contact will probably cause irritation.

Ingestion:

Symptoms: May irritate the digestive tract and cause same symptoms as inhalation; high dosages may result in unconsciousness.

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

Product:

Results of PBT and vPvB assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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	:	There is no data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

EPA Hazardous Waste Code(s)	:	D001: Ignitable
Waste from residues	:	Dispose of in accordance with applicable local/municipal, state/provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1993
Proper shipping name	:	Flammable liquid, n.o.s. (Isobutanol, 1-Methoxy-2-propanol)
Class	:	3
Packing group	:	III
Labels	:	Flammable Liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1993
Proper shipping name	:	FLAMMABLE LIQUID, N.O.S. (Isobutanol, 1-Methoxy-2-propanol)
	:	)
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no
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 1993
Proper shipping name	:	Flammable liquids, n.o.s. (Isobutanol, 1-Methoxy-2-propanol)
Class	:	3
Packing group	:	III
Labels	:	FLAMMABLE LIQUID
ERG Code	:	128
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)

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Xylene	1330-20-7	100	5492

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.

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.

Xylene	1330-20-7	1.8 %

Ethyl benzene	100-41-4	.7 %

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	1.8 %

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):

Isobutanol	78-83-1	58.0 %
Xylene	1330-20-7	1.8 %

Non-volatile (Wt) : No data available

Massachusetts Right To Know

Isobutanol	78-83-1
1-Methoxy-2-propanol	107-98-2
Xylene	1330-20-7
Benzene	71-43-2

Pennsylvania Right To Know

Isobutanol	78-83-1
1-Methoxy-2-propanol	107-98-2
Boric acid ester	-
Xylene	1330-20-7
Ethyl benzene	100-41-4
Cumene	98-82-8

New Jersey Right To Know

Isobutanol	78-83-1
1-Methoxy-2-propanol	107-98-2
Boric acid ester	-
Xylene	1330-20-7
Ethyl benzene	100-41-4

New Jersey Trade Secret Registry Number for the product (NJ TSRN) : 800963-5359

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Ethyl benzene, Cumene, Benzene, which is/are known to the State of California to cause cancer, and Toluene, Benzene, 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.

CONEG Heavy Metal: We confirm that we use packaging and/or packaging components in which the sum of the incidental concentration levels of lead, mercury, cadmium and hexavalent chromium do not exceed 100 parts per million by weight.

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 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

Revision Date	:	07/29/2020

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.