

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

SECTION 1. IDENTIFICATION

Product name : RHEOBYK-431

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 : Rheology 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

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.Precautionary statements : **Prevention:**
P210 Keep away from heat/ sparks/ open flames/ hot surfaces.
No smoking.
P233 Keep container tightly closed.

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

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/ 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.

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 high molecular urea modified non polar polyamide

Hazardous components

| Component | CAS-No. | Concentration (%) |
|------------------|----------|-------------------|
| Isobutanol | 78-83-1 | >= 64 - < 65 |
| Polyamide | - | >= 25 - < 26 |
| 2-Phenoxyethanol | 122-99-6 | >= 9 - < 10 |

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

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

SECTION 4. FIRST AID MEASURES

- | | | |
|---|---|---|
| General advice | : | Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. 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 | : | Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. 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. |
| Most important symptoms and effects, both acute and delayed | : | No information available. |

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 Nitrogen oxides (NO _x) chlorinated compounds |
| Further information | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains. |

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

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.
 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 : 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

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.
 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.
 To avoid spills during handling keep bottle on a metal tray.
 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.
 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.

Materials to avoid : Keep away from strong acids.

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

Keep away from halides.
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/m ³ | OSHA Z-1 |

Hazardous components without workplace control parameters

Engineering measures : Use with local exhaust ventilation.

Personal protective equipment

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

Hand protection
Material : Nitrile rubber

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 : yellow
Odour : alcohol-like
Odour Threshold : No data available

pH : 5, Concentration: 1 % (68 °F (20 °C)) Method: Universal pH-value indicator

Melting point/range : < 32 °F (< 0 °C)
Method: derived

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

| | |
|--|---|
| Initial boiling point | : 223 °F (106 °C) Method: derived |
| Vapour pressure | : < 10 hPa (68 °F (20 °C)) Method: derived |
| Flash point | : ca. 84 °F (29 °C) Method: 48 (Abel-Pensky) |
| Upper explosion limit | : 7 %(V) |
| Lower explosion limit | : 0.6 %(V) |
| Evaporation rate | : No data available |
| Relative vapour density | : No data available |
| Relative Density/Specific Gravity | : No data available |
| Density | : ca. 0.87 g/cm ³ (68 °F (20 °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 | : ca. 100 mPa.s (68 °F (20 °C)) Method: 11 (NV, 20°C) |
| Viscosity, kinematic | : No data available |
| Surface tension | : No data available |

SECTION 10. STABILITY AND REACTIVITY

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

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 : Acids
Strong oxidizing agents
halides

Hazardous decomposition products : None known.

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

Inhalation
Ingestion
Eyes
Skin contact
Skin Absorption

Acute toxicity**Product:**

Acute oral toxicity : Acute toxicity estimate : 2,985 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 3,484 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

122-99-6 2-Phenoxyethanol:

Acute oral toxicity : LD50 (Rat): 1,840 mg/kg
Method: OECD Test Guideline 401
GLP: no

Acute dermal toxicity : LD50 (Rabbit): 3,818 mg/kg

Skin corrosion/irritation**Product:**

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

Remarks: Extremely corrosive and destructive to tissue.

Components:**78-83-1 Isobutanol:**

Species: Rabbit

Result: Moderate skin irritation

122-99-6 2-Phenoxyethanol:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

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

Remarks: May cause irreversible eye damage.

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:**78-83-1 Isobutanol:**

Species: Rabbit

Result: Eye irritation

Method: OECD Test Guideline 405

GLP: yes

122-99-6 2-Phenoxyethanol:

Species: Rabbit

Result: Eye irritation

Method: OECD Test Guideline 405

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.

122-99-6 2-Phenoxyethanol:

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Does not cause skin sensitisation.

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

Carcinogenicity**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**Components:****122-99-6 2-Phenoxyethanol:**

Effects on foetal development

: Species: Rat
Application Route: Oral
Duration of Single Treatment: 14 d
General Toxicity Maternal: No observed adverse effect level: 300 mg/kg body weight
Teratogenicity: No observed adverse effect level: 1,000 mg/kg body weight
Method: OECD Test Guideline 414

Species: Rabbit
Application Route: Dermal
Duration of Single Treatment: 14 d
General Toxicity Maternal: No observed adverse effect level: 300 mg/kg body weight
Teratogenicity: No observed adverse effect level: 600 mg/kg body weight

Repeated dose toxicity**Product:**

Remarks: Absorption of ingredients (solvents) by inhalation and/or repeated skin contact has caused injury to liver/kidney/blood in laboratory animals.

Prolonged absorption of Lithium Chloride may cause injury to the kidney and/or blood.

Laboratory test results indicate Lithium Chloride may be teratogenic.

Isobutanol has shown positive results in an in vitro test for potential mutagenicity.

Components:**122-99-6 2-Phenoxyethanol:**

Species: Rat

NOAEL: 700 mg/kg

Application Route: Oral

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

Method: OECD Test Guideline 408

Species: Rat

NOAEL: 0.0482 mg/l

Application Route: Inhalation

Method: OECD Test Guideline 412

Target Organs: Respiratory organs

Aspiration toxicity**Components:****78-83-1 Isobutanol:**

No aspiration toxicity classification

Experience with human exposure**Product:**

Inhalation:

Symptoms:

High concentrations are irritating to the respiratory tract. Has caused headaches, dizziness, nausea, vomiting and CNS depression (drowsiness, loss of coordination and fatigue).

Skin contact:

Symptoms:

Contact will probably cause irritation.

Eye contact:

Symptoms:

Contact will probably cause irritation.

Ingestion:

Symptoms:

Ingestion may irritate the digestive tract; high dosages may cause CNS depression.

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:**

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

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 : No data available

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.
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.

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

SECTION 14. TRANSPORT INFORMATION
International Regulations
IATA-DGR

UN/ID No. : UN 1212
 Proper shipping name : Isobutyl alcohol solution
 Class : 3
 Packing group : III
 Labels : Flammable Liquids
 Packing instruction (cargo aircraft) : 366
 Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1212
 Proper shipping name : ISOBUTANOL, SOLUTION
 Class : 3
 Packing group : III
 Labels : 3
 EmS Code : F-E, S-D
 Marine pollutant : no

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 1212
 Proper shipping name : Isobutanol
 Class : 3
 Packing group : III
 Labels : FLAMMABLE LIQUID
 ERG Code : 129
 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) |
|------------|---------|-----------------------|--------------------------------|
| Isobutanol | 78-83-1 | 5000 | 7778 |

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

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.

| | | |
|------------------|----------|-------|
| 2-Phenoxyethanol | 122-99-6 | 9.8 % |
|------------------|----------|-------|

Clean Air Act

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

| | | |
|------------------|----------|-------|
| 2-Phenoxyethanol | 122-99-6 | 9.8 % |
|------------------|----------|-------|

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 SOCMII Intermediate or Final VOC's (40 CFR 60.489):

| | | |
|------------------|----------|--------|
| Isobutanol | 78-83-1 | 64.2 % |
| 2-Phenoxyethanol | 122-99-6 | 9.8 % |

Non-volatile (Wt) : 25 %
 Method: 23 (20min/150°C)
 DIN EN ISO 3251
 Non-volatile information is not a specification.

Massachusetts Right To Know

| | |
|------------|---------|
| Isobutanol | 78-83-1 |
|------------|---------|

Pennsylvania Right To Know

| | |
|------------|--------------|
| Isobutanol | 78-83-1 |
| Polyamide | Not Assigned |

RHEOBYK-431

Version 5

Revision Date 05/12/2022

Print Date 01/06/2026

2-Phenoxyethanol 122-99-6

New Jersey Right To Know

Isobutanol 78-83-1
 Polyamide Not Assigned
 2-Phenoxyethanol 122-99-6

New Jersey Trade Secret : 800963-5369
Registry Number for the product (NJ TSRN)

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 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 : The following component(s) is/are not listed on the DSL:

:

CEPA Category : Polymer
 Weight percent : 25.0 %
 NSN Filed : None
 Max. NSN Required : Schedule 10

SECTION 16. OTHER INFORMATION

Revision Date : 05/12/2022

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.