

PURABYK-R 5531

Version 1

Revision Date 02/12/2025

Print Date 01/06/2026

SECTION 1. IDENTIFICATION

Product name : PURABYK-R 5531

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.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 : Rheology Additive

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

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Skin sensitisation : Category 1

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.**Other hazards**

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None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
 Chemical nature : Solution of a modified urea

Hazardous components

Component	CAS-No.	Concentration (%)
4-Morpholinecarboxaldehyde	4394-85-8	>= 30 - < 60
Lithium chloride [LiCl]	7447-41-8	>= 1 - < 5

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 : If unconscious, place in recovery position and seek medical advice.
 If symptoms persist, call a physician.

In case of skin contact : If on skin, rinse well with water.

In case of eye contact : 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 : Keep respiratory tract clear.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media : High volume water jet

Hazardous combustion products : Carbon oxides
 Nitrogen oxides (NO_x)
 Halogenated compounds
 Metal oxides
 Hydrogen chloride
 Hydrogen cyanide (hydrocyanic acid)

Further information : Standard procedure for chemical fires.
 Use extinguishing measures that are appropriate to local

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Special protective equipment for firefighters : circumstances and the surrounding environment.
: 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.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : 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 : 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.
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 : Keep container tightly closed in a dry and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

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

Contains no substances with occupational exposure limit values.
Hazardous components without workplace control parameters

Personal protective equipment

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 : Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: yellow - brown
Odour	: characteristic
Odour Threshold	: No data available
pH	: 6, Concentration: 10 % (68 °F (20 °C)) Method: Universal pH-value indicator
Melting point/ range	: ca. < 32 °F (< 0 °C) Method: derived
Boiling point/boiling range	: ca. 471 °F (244 °C) Method: derived
Vapour pressure	: ca. 1 hPa (68 °F (20 °C)) Method: derived
Flash point	: 259 °F (126 °C) Method: 49 (Pensky-Martens)
Upper explosion limit	: No data available
Lower explosion limit	: No data available
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	: ca. 1.18 g/cm ³ (68 °F (20 °C)) Method: 4 (20°C oscillating U-tube)
Solubility(ies)	
Water solubility	: partly miscible
Solubility in other solvents	: No data available

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Ignition temperature	:	> 392 °F (> 200 °C) Method: M0062 (Analytics Wesel)
Thermal decomposition	:	No data available
Viscosity	:	
Viscosity, dynamic	:	ca. 1,024 mPa.s (68 °F (20 °C)) Method: P/K 20°C
Viscosity, kinematic	:	No data available

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.
Conditions to avoid	:	No data available
Incompatible materials	:	Strong oxidizing agents Acids Bases
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

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

Components:**4394-85-8 4-Morpholinecarboxaldehyde:**

Acute oral toxicity	:	LD50 (Rat): > 7,360 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): > 18,400 mg/kg Method: OECD Test Guideline 402

7447-41-8 Lithium chloride [LiCl]:

Acute oral toxicity	:	LD50 (Rat): 526 mg/kg
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GLP: No information available.

Acute inhalation toxicity : LC50 (Rat): > 5.57 mg/l
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Skin corrosion/irritation**Product:**

Remarks: May cause skin irritation and/or dermatitis.

Components:**7447-41-8 Lithium chloride [LiCl]:**

Species: Rabbit

Result: Moderate skin irritation

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

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

Components:**7447-41-8 Lithium chloride [LiCl]:**

Species: Rabbit

Result: Severe eye irritation

Method: OECD Test Guideline 405

GLP: yes

Respiratory or skin sensitisation**Product:**

Remarks: Causes sensitisation.

Components:**7447-41-8 Lithium chloride [LiCl]:**

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

GLP: yes

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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.

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

STOT - single exposure**Product:**

Remarks: No data available

STOT - repeated exposure**Product:**

Remarks: No data available

Repeated dose toxicity**Product:**

Remarks: No data available

Aspiration toxicity**Product:**

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No data available

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**Toxicity to fish :
Remarks: No data availableToxicity 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 SubstancesRemarks 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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not dispose of waste into sewer.

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Contaminated packaging : Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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**

Not regulated as a dangerous good

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.

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).

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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Massachusetts Right To Know

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

Pennsylvania Right To Know

4-Morpholinecarboxaldehyde	4394-85-8
Modified urea	-

New Jersey Right To Know

New Jersey Trade Secret Registry Number for the product (NJ TSRN) : 800963-6181

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	: 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	: 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.