

**DISPERBYK-174**

Product code: 00000000000105859

Version 5.2 SDS\_APJ\_MY

Revision Date 13.11.2025

Print Date 19.11.2025

**SECTION 1: Identification of the hazardous chemical and of the supplier****Product identifier**

Product name : DISPERBYK-174

Recommended use : Wetting & Dispersing Additive

**Manufacturer or supplier's details**

Company : BYK-Chemie GmbH

Address : Abelstrasse 45  
46483 Wesel

Telephone : +49 281 670-23532

Telefax : +49 281 670-23533

E-mail address : GHS.BYK@altana.com

Emergency telephone : +60 3 6207 4347 (Malay and English)  
+65 3158 1074 (All languages)

**SECTION 2: Hazards identification****Classification of the hazardous chemical**

Flammable liquids : Category 3

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2

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

Specific target organ toxicity - repeated exposure : Category 2

**Label elements**

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements : **Prevention:**  
P210 Keep away from heat/ sparks/ open flames/ hot surfaces.

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No smoking.  
 P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
 P264 Wash skin thoroughly after handling.  
 P280 Wear protective gloves/ eye protection/ face protection.

### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

### Other hazards which do not result in classification

None known.

## SECTION 3: Composition and information of the ingredients of the hazardous chemical

Substance / Mixture : Mixture  
 Chemical nature : Solution of modified polyurethane

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Xylene, mixture of isomers	1330-20-7	>= 12.5 -< 20
2-methoxy-1-methylethyl acetate	108-65-6	>= 12.5 -< 20
n-butyl acetate	123-86-4	>= 7 -< 10
ethylbenzene	100-41-4	>= 5 -< 7

## SECTION 4: First aid measures

General advice : Move out of dangerous area.  
 Show this material 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 : 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 give milk or alcoholic beverages.  
 Never give anything by mouth to an unconscious person.  
 If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : No information available.

Notes to physician : No information available.

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**SECTION 5: Firefighting measures****Extinguishing media**

Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

**Physicochemical hazards arising from the chemical**

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)

**Special protective equipment and precautions for fire-fighters**

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods : 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.

**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 vapors accumulating to form explosive concentrations. Vapors 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****Handling****Precautions for safe handling**

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.  
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

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Keep away from open flames, hot surfaces and sources of ignition.

Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapors/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.

### Storage

#### Conditions for safe storage, including any incompatibilities

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.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8: Exposure controls and personal protection

### Control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Xylene, mixture of isomers	1330-20-7	TWA	100 ppm 434 mg/m <sup>3</sup>	MY PEL
		TWA	20 ppm	ACGIH
n-butyl acetate	123-86-4	TWA	150 ppm 713 mg/m <sup>3</sup>	MY PEL
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
ethylbenzene	100-41-4	TWA	100 ppm 434 mg/m <sup>3</sup>	MY PEL
		TWA	20 ppm	ACGIH

### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Xylene, mixture of isomers	1330-20-7	Methylhippuric acids	Urine	End of shift (As soon as possible after	0.3 g/g creatinine	ACGIH BEI

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				exposure ceases)		
ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	150 mg/g creatinine	ACGIH BEI

**Individual protection measures, such as personal protective equipment (PPE)**

- Eye/face protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.
- Skin protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hand protection  
Material : Nitrile rubber  
Break through time : > 480 min  
Glove thickness : > 4 mm
- Remarks : Wear suitable gloves.
- Respiratory protection : In the case of vapor formation use a respirator with an approved filter.
- 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
- Color : yellow
- Odor : solvent
- Odor Threshold : No data available
- pH : 6 (20 °C)  
Concentration: 1 %  
Method: Universal pH-value indicator
- Melting point/freezing point : < 0 °C  
Method: derived
- Initial boiling point and boiling range : 124.00 °C  
Method: derived
- Flash point : 31 °C  
Method: 48 (Abel-Pensky) DIN 51755
- Evaporation rate : No data available

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Flammability (liquids)	:	Sustains combustion
Upper explosion limit / Upper flammability limit	:	10.80 %(V)
Lower explosion limit / Lower flammability limit	:	1.00 %(V)
Vapor pressure	:	7 hPa (20.00 °C) Method: derived
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	0.9650 g/cm <sup>3</sup> (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
Autoignition temperature	:	> 200 °C Method: DIN 51794
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	46 mm <sup>2</sup> /s ( 40.00 °C)
Surface tension	:	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. Vapors 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 : None known.

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exposure

**Acute toxicity****Product:**

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Calculation methodAcute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method**Components:****Xylene, mixture of isomers:**Acute oral toxicity : LD50 (Rat): 4,300 mg/kg  
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)  
GLP: noAcute dermal toxicity : LD50 (Rabbit): > 4,200 mg/kg  
GLP: No information available.**2-methoxy-1-methylethyl acetate:**Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

**n-butyl acetate:**Acute oral toxicity : LD50 (Rat, male): > 10,000 mg/kg  
Method: OECD Test Guideline 423Acute inhalation toxicity : LC50 (Rat, male and female): > 21.1 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: OECD Test Guideline 403  
GLP: yesAcute dermal toxicity : LD50 (Rabbit, male and female): > 14,000 mg/kg  
Method: OECD Test Guideline 402**Skin corrosion/irritation****Product:**Remarks : May irritate skin.  
May cause skin irritation in susceptible persons.

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**Components:****2-methoxy-1-methylethyl acetate:**

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

**n-butyl acetate:**

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

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

Remarks : Causes serious eye irritation.

Remarks : Causes serious eye irritation.

**Components:****2-methoxy-1-methylethyl acetate:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

**n-butyl acetate:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

**Respiratory or skin sensitization****Product:**

Remarks : No data available

**Components:****2-methoxy-1-methylethyl acetate:**

Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Not a skin sensitizer.  
GLP : yes

**n-butyl acetate:**

Test Type : Buehler Test  
Species : Guinea pig  
Method : OECD Test Guideline 406

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Result : Does not cause skin sensitization.

**Germ cell mutagenicity****Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

**Carcinogenicity****Product:**

Remarks : No data available

**Reproductive toxicity****Product:**

Effects on fertility : Remarks: No data available

Effects on fetal 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:**

No data available

**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.

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**SECTION 12: Ecological information****Ecotoxicity****Product:**

Toxicity to fish :  
Remarks: No data available

**Components:****Xylene, mixture of isomers:**

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 1 mg/l  
aquatic invertebrates : Exposure time: 24 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Selenastrum capricornutum (green algae)): 2.2 mg/l  
plants : Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.44 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic : NOEC (Oncorhynchus mykiss (rainbow trout)): > 1.3 mg/l  
toxicity) : Exposure time: 56 d

Toxicity to daphnia and other : NOEC (Daphnia sp. (Water flea)): 1.17 mg/l  
aquatic invertebrates : Exposure time: 7 d  
(Chronic toxicity)

NOEC (Daphnia sp. (Water flea)): 0.96 mg/l  
Exposure time: 7 d

**2-methoxy-1-methylethyl acetate:**

Toxicity to fish : LC50 (Fish): 100 - 180 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: no

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (green algae)): >  
plants : 1,000 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: no

**n-butyl acetate:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 18 mg/l

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Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 44 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Scenedesmus subspicatus): 675 mg/l  
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 23 mg/l  
End point: Reproduction  
Exposure time: 21 d  
Method: OECD Test Guideline 211

**Persistence and degradability****Product:**

Biodegradability : Remarks: No data available

**Components:****Xylene, mixture of isomers:**

Biodegradability : aerobic  
Result: Readily biodegradable.  
Method: OECD Test Guideline 301F  
GLP: yes

**2-methoxy-1-methylethyl acetate:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301F  
GLP: yes

**n-butyl acetate:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301D

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: No data available

**Components:****Xylene, mixture of isomers:**

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)  
Bioconcentration factor (BCF): 25.9  
Exposure time: 56 d  
GLP: no

Partition coefficient: n-octanol/water : Pow: 3.2 (20 °C)  
pH: 7

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### 2-methoxy-1-methylethyl acetate:

Partition coefficient: n-octanol/water : log Pow: 1.2 (20 °C)  
 pH: 6.8  
 Method: OECD Test Guideline 117  
 GLP: yes

### n-butyl acetate:

Partition coefficient: n-octanol/water : log Pow: 2.3 (25 °C)  
 pH: 7  
 Method: OECD Test Guideline 117  
 GLP: yes

### Mobility in soil

No data available

### Other adverse effects

### Product:

Additional ecological information : No data available

## SECTION 13: Disposal information

### 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 1993  
 Proper shipping name : Flammable liquid, n.o.s.  
 (Xylene, Butyl acetate)  
 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.  
 (XYLENE, BUTYL ACETATE)  
 Class : 3

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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.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**SECTION 15: Regulatory information****Safety, health, and environmental regulations specific for the hazardous chemical**

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013.

Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

**SECTION 16: Other information**

Date format : dd.mm.yyyy

**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)  
MY PEL : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

ACGIH / TWA : 8-hour, time-weighted average  
ACGIH / STEL : Short-term exposure limit  
MY PEL / TWA : Eight-hour time-weighted average airborne concentration

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test

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population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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.

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