BYK-P 9051

Product code: 000000000000121257

Version 2.0 SDS_APJ_MY Revision Date 26.11.2022 Print Date 09.08.2023

SECTION 1: Identification of the hazardous chemical and of the supplier

Product identifier

Product name	:	BYK-P 9051
Recommended use	:	Processing 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 number	:	+60 3 6207 4347 (Malay and English) +65 3158 1074 (All languages)

SECTION 2: Hazards identification

Classification of the hazardous chemical

Hazardous to the aquatic environment - chronic hazard	:	Category 3

Label elements

Hazard pictograms	:	None
Signal word	:	None
Hazard statements	:	H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	:	**Prevention:** P273 Avoid release to the environment. **Disposal:** P501 Dispose of contents/ container to an approved waste disposal plant.

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	:	Combination of surface active substances and polymers

Components

Chemical name	CAS-No.	Concentration (% w/w)
Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters	-	>= 20 -< 25
2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate	398475-96-2	>= 5 -< 7

SECTION 4: First aid measures

General advice : 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 eye contact : Remove contact lenses.
Protect unharmed eye.
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.
No information available.

Notes to physician : No information available.

SECTION 5: Firefighting measures

Extinguishing media

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

Unsuitable extinguishing media : High volume water jet

Physicochemical hazards arising from the chemical

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

Hazardous combustion products : Nitrogen oxides (NOx)
Oxides of phosphorus
Carbon oxides

Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters	:	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.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment.
Environmental precautions	:	Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Handling

Precautions for safe handling

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.

Storage

Conditions for safe storage, including any incompatibilities

Conditions for safe storage	:	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.
Materials to avoid	:	No materials to be especially mentioned.
Further information on storage stability	:	No decomposition if stored and applied as directed.

SECTION 8: Exposure controls and personal protection

Control parameters

Contains no substances with occupational exposure limit values.

Individual protection measures, such as personal protective equipment

Eye/face protection	:	Safety glasses
Skin protection	:	Protective suit
Hand protection		
Material	:	Nitrile rubber
Break through time	:	> 120 min
Remarks	:	Wear suitable gloves.
Respiratory protection	:	No personal respiratory protective equipment normally required.
Hygiene measures	:	General industrial hygiene practice.

SECTION 9: Physical and chemical properties

Appearance	:	liquid
Colour	:	dark brown
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	7 (20 °C) Concentration: 1 % Method: Universal pH-value indicator
Melting point/freezing point	:	< 0 °C Method: derived
Initial boiling point and boiling range	:	> 200 °C Method: derived
Flash point	:	> 150 °C Method: 49 (Pensky-Martens)
Evaporation rate	:	No data available
Flammability (liquids)	:	Sustains combustion
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available

Vapour pressure	:	< 0.01 hPa Method: derived
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	0.97 g/cm3 (20 °C, 1,013 hPa) 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
Auto-ignition temperature	:	> 200 °C Method: DIN 51794
Decomposition temperature	:	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	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	:	No data available
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 exposure	:	None known.

Acute toxicity

Product:

Acute oral toxicity : Remarks: No data available

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Acute oral toxicity : LD50 Oral (Rat, female): > 2,000 mg/kg
Method: OECD Test Guideline 423
GLP: yes

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

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
GLP: yes

Skin corrosion/irritation

Product:

Remarks : No data available

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Species : EPISKIN human epidermis skin constructs
Method : OECD Test Guideline 439
Result : No skin irritation
GLP : yes

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

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

Serious eye damage/eye irritation

Product:

Remarks : No data available

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Species : Bovine corneal opacity and permeability assay (BCOP)

Result	:	No eye irritation
Method	:	OECD Test Guideline 437
GLP	:	yes

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

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

Species	:	Rabbit
Result	:	Irritating to eyes.
Assessment	:	Irritating to eyes.
Method	:	OECD Test Guideline 405
GLP	:	yes

Respiratory or skin sensitisation

Product:

Remarks : No data available

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Test Type	:	Mouse Local Lymph Node assay (LLNA)
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitisation.
GLP	:	yes

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

Remarks : No data available

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: In vitro mammalian cell gene mutation test (mouse

lymphoma)

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Test Type: Micronucleus test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 487
Result: negative
GLP: yes

Carcinogenicity

Product:

Remarks : No data available

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

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Species : Rat, male and female
LOAEL : 250 mg/kg
Application Route : Oral
Method : OECD Test Guideline 408
GLP : No information available.

Species : Mouse, male and female
LOAEL : 250 mg/kg

Application Route	:	Oral
Method	:	OECD Test Guideline 408
GLP	:	No information available.

Species	:	Rat, male and female
NOAEL	:	100 mg/kg
Application Route	:	Oral
GLP	:	yes

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

Remarks : No data available

Aspiration toxicity

Product:

No data available

Further information

Product:

Remarks : No data available

SECTION 12: Ecological information

Ecotoxicity

Product:

Toxicity to fish :
Remarks: No data available

Toxicity to algae/aquatic plants :
Remarks: No data available

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 10 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : ErL50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Test Type: static test

Method: OECD Test Guideline 201
GLP: yes

Toxicity to microorganisms : IC50 (activated sludge): > 1,000 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209
GLP: yes

Toxicity to soil dwelling organisms : NOEC (Eisenia fetida (earthworms)): > 1,000 mg/kg
Exposure time: 56 d
End point: Reproduction
Method: OECD Test Guideline 222
GLP: yes

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 8.0 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1.0 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components:

Fatty acids, C18-unsatd., dimers, 2-ethylhexyl esters:

Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301B
GLP: yes

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301B
GLP: yes

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

2-Propenoic acid, 2-ethylhexyl ester, reaction products with ethylenediamine-ethylenimine polymer, compds. with polyethylene-polypropylene glycol mono-Bu ether phosphate**:**

Bioaccumulation : Remarks: No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal information

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.

SECTION 14: Transport information

International Regulations

UNRTDG

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable

IATA-DGR

UN/ID No.	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Packing instruction (cargo aircraft)	:	Not applicable
Packing instruction (passenger aircraft)	:	Not applicable

IMDG-Code

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable

EmS Code : Not applicable
Marine pollutant : Not applicable

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

Not applicable

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

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 Standardisation; 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 Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; 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, Authorisation 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

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