

BYK-L 9540

Product code: 00000000000105934

Version 3.1 SDS_APJ_MY

Revision Date 02.02.2024

Print Date 28.02.2024

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

Product name : BYK-L 9540

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

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

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 1

Specific target organ toxicity - repeated exposure : Category 2

Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H315 Causes skin irritation.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements :

Prevention:

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

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

BYK-L 9540

Product code: 000000000000105934

Version 3.1 SDS_APJ_MY

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CENTER or doctor/ physician.
P314 Get medical advice/ attention if you feel unwell.

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 : Alkanolamine

Components

Chemical name	CAS-No.	Concentration (% w/w)
2,2'-iminodiethanol	111-42-2	>= 50 -<= 100
2,2' -oxybisethanol	111-46-6	>= 1 -< 3

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

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 : Clean mouth with water and drink afterwards plenty of water.
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.

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

Notes to physician : No information available.

BYK-L 9540

Product code: 000000000000105934

Version 3.1 SDS_APJ_MY

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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 : Carbon oxides
Nitrogen oxides (NO_x)

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.
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 : Neutralise with acid.
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**Handling****Precautions for safe handling**

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- 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.

BYK-L 9540

Product code: 00000000000105934

Version 3.1 SDS_APJ_MY

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To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Storage
Conditions for safe storage, including any incompatibilities

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.

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
2,2'-iminodiethanol	111-42-2	TWA	0.46 ppm 2 mg/m ³	MY PEL
	Further information: Skin			
		TWA (Inhalable fraction and vapor)	1 mg/m ³	ACGIH

Individual protection measures, such as personal protective equipment

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 : butyl-rubber
Break through time : > 480 min

Remarks : Wear suitable gloves.

Respiratory protection : In the case of vapour 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

Colour : colourless

BYK-L 9540

Product code: 000000000000105934

Version 3.1 SDS_APJ_MY

Revision Date 02.02.2024

Print Date 28.02.2024

Odour	:	none
pH	:	10.8 (20 °C) Concentration: 10 % Method: DIN 19268 (10% in water)
Melting point/range	:	-10.00 °C Method: derived
Initial boiling point	:	268.00 °C Method: derived
Flash point	:	> 100.00 °C Method: 49 (Pensky-Martens)
Flammability (liquids)	:	Sustains combustion
Upper explosion limit / Upper flammability limit	:	10.60 %(V)
Lower explosion limit / Lower flammability limit	:	2.10 %(V)
Vapour pressure	:	< 0.1 hPa (20 °C) Method: derived
Density	:	1.1100 g/cm ³ (20.00 °C) Method: 4 (20°C oscillating U-tube)
Bulk density	:	Not applicable
Solubility(ies) Water solubility	:	soluble
Auto-ignition temperature	:	> 200.00 °C Method: DIN 51794
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available 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	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	No data available
Incompatible materials	:	Strong oxidizing agents

BYK-L 9540

Product code: 000000000000105934

Version 3.1 SDS_APJ_MY

Revision Date 02.02.2024

Print Date 28.02.2024

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 : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:**2,2'-iminodiethanol:**

Acute oral toxicity : LD50 (Rat, male and female): 1,600 mg/kg
Method: OECD Test Guideline 401

Skin corrosion/irritation**Product:**

Remarks : May irritate skin.
May cause skin irritation in susceptible persons.

Components:**2,2'-iminodiethanol:**

Species : Rabbit
Method : OECD Test Guideline 404
Result : Skin irritation

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

Remarks : May cause irreversible eye damage.

Components:**2,2'-iminodiethanol:**

Species : Rabbit
Result : Risk of serious damage to eyes.
Method : OECD Test Guideline 405

Respiratory or skin sensitisation**Product:**

Remarks : No data available

BYK-L 9540

Product code: 00000000000105934

Version 3.1 SDS_APJ_MY

Revision Date 02.02.2024

Print Date 28.02.2024

Components:**2,2'-iminodiethanol:**

Test Type : Maximisation Test
Exposure routes : Dermal
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.
GLP : yes

2,2' -oxybisethanol:

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

Repeated dose toxicity**Product:**

Remarks : No data available

Further information**Product:**

Remarks : No data available

SECTION 12: Ecological information**Ecotoxicity****Product:**Toxicity to fish :
Remarks: No data available**Components:****2,2'-iminodiethanol:**Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1,460 mg/l
Exposure time: 96 h
GLP: yesToxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 2.2 mg/l
Exposure time: 96 h
GLP: yesToxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.78 mg/l
Exposure time: 21 d
GLP: yes

BYK-L 9540

Product code: 00000000000105934

Version 3.1 SDS_APJ_MY

Revision Date 02.02.2024

Print Date 28.02.2024

Persistence and degradability**Product:**

Biodegradability : Remarks: No data available

Components:**2,2'-iminodiethanol:**Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301F
GLP: yes**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: No data available

Components:**2,2'-iminodiethanol:**Bioaccumulation : Bioconcentration factor (BCF): < 0.4
Exposure time: 42 d
Method: OECD Test Guideline 305C**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.**SECTION 14: Transport information****International Regulations****UNRTDG**UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable

BYK-L 9540

Product code: 00000000000105934

Version 3.1 SDS_APJ_MY

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Print Date 28.02.2024

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

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
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

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 -

BYK-L 9540

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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

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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