

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier:** VK 2 spezial**1.2 Relevant identified uses of the substance or mixture and uses advised against:****Uses:** Additive for aqueous fogging solutions of pesticides and disinfectants.

The product is intended only for professional use.

1.3 Details of the supplier of the safety data sheet:

Keller & Bohacek GmbH & Co. KG

Liliencronstr. 64 D-40472 Düsseldorf

Phone: +49 (0)211 / 9653 – 0 Fax: +49 (0)211 / 655202

E-Mail: info@kebo.de Internet: <http://www.kebo.de>E-mail address of the qualified person responsible for the Safety Data Sheet: safetydata_info@kebo.de**1.4 Emergency telephone number:** +49 (0)211 / 9653 – 0 (Mon-Thur: 7.30 - 16 h, Fri: 7.30-15 h)E-Mail: safetydata_info@kebo.de**Safety data sheet issuing area:** Department Work Safety and Environmental Protection**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture:**

In accordance with Regulation (EC) No 1272/2008 [CLP]

Acute toxicity: cat 4 (oral).

2.2 Label elements:

Signal word: Warning

Hazard statements: H302: Harmful if swallowed.


Precautionary statements: P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/fume/gas/mist/vapors/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P308+P313 IF EXPOSED OR CONCERNED: Get medical advice/attention. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/container to hazardous or special waste collection point.

2.3 Other hazards

The substance/mixture does not fulfil the criteria for PBT resp. vPvB as per Annex XIII of the EC regulation No. 1907/2006.

SECTION 3: Composition/information on ingredients
Chemical characterization: aqueous mixture of emulsifier and solvent

Hazardous ingredients according to Regulation (EC) No. 1272/2008 [CLP]:

Substance: diethylene glycol			 Pictograms:
CAS-No.: 111-46-6	Registration-No.: 01-2119457857-21	Content: > 25 %	
EG-No.: 203-872-2	Hazard statements: H302		
Classification: Acute toxicity: cat 4 (oral).			
ATE: 1120 mg/kg oral	SCL: ---	M-Factor: ---	

Wording of the H-Phrases see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures: Inform first aid personnel and provide first aid equipment. Remove contaminated soaked clothing immediately and dispose of safely.
After inhalation: In the event of symptoms ensure supply of fresh air, if necessary consult a doctor.
After skin contact: In case of contact with skin wash off immediately with water and soap.
After eye contact: In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice
After ingestion: Rinse out mouth and give plenty of water to drink. Seek medical attention immediately. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed: unknown

4.3 Indication of any immediate medical attention and special treatment needed:
 Treat symptomatically, no specific antidote known.

SECTION 5: Firefighting measures
Extinguishing media
5.1 Suitable extinguishing media: water; foam; ABC powder and carbon dioxide

For safety reasons unsuitable extinguishing media: unknown

5.2 Special hazards arising from the substance or mixture: In the event of fire the following can be released: carbon monoxide (CO)

5.3 Advice for firefighters: Use self-contained breathing apparatus with gas-tight suit if close exposure to the substance or its vapors is likely.

SECTION 6: Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures:
Procedure: Use personal protective clothing. Follow existing emergency plans and inform the responsible expert.

6.2 Environmental precautions: Prevent spread over a wide area (e.g. by containment).

6.3 Methods and material for containment and cleaning up: Take up with absorbent material (e.g. sand). Flush away residues with: water

6.4 Reference to other sections: Details for disposal can be taken from section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Ensure adequate ventilation. Handle and open container with care.

Advice on protection against fire and explosion: The substance/mixture is combustible.

Take precautionary measures against electrostatic loading. Keep away from sources of ignition.

Vapours can form an explosive mixture with air.

7.2 Conditions for safe storage, including any incompatibilities: Keep only in original container.

Keep container tightly closed in a well-ventilated place. Protect against unauthorized access.

Prevent penetration into the ground.

Information about storage in one common storage facility: Do not store together with food and animal feedstuffs.

Further information on storage conditions: Protect from heat.

7.3 Specific end use(s): see product information

SECTION 8: Exposure controls/personal protection

The effectiveness of the necessary measures should be checked by an accredited measuring body.

8.1 Control parameters

Substance	MAK/AGW-Values
diethylene glycol	44 mg/m ³

Substance: diethylene glycol

route of exposure	used in	exposure time	DNEL-values
human, dermal	worker	chronic - systemic effects	43 mg/kg
human, dermal	consumer	chronic - systemic effects	21 mg/kg
human, inhalatory	worker	chronic - systemic effects	44 mg/m ³

organism	Environmental compartment	exposure time	PNEC-values
aquatic organisms	freshwater	short-term (single in-stance)	10 mg/l
aquatic organisms	marine water	short-term (single in-stance)	1 mg/l
aquatic organisms	sewage treatment plant	short-term (single in-stance)	199.5 mg/l
terrestrial organisms	soil	short-term (single in-stance)	1.53 mg/kg

8.2 Exposure controls

Personal protective equipment:

Respiratory protection: Take care of sufficient aeration, otherwise use short-term filter apparatus (recommended filter type: A EN136 / EN141 / EN143 / EN371).

Hand protection: Protective butyl rubber gloves 0.7 mm thickness corresponding to a permeation time of > 60 minutes according to EN 374.

Eye protection: Tightly fitting safety glasses with side protection shield according to EN 166.

Additional protective measures: At work do not eat, drink, smoke or take drugs.

Dependent on the work and possible exposure hazards and in addition to the specified protective equipment choose e.g. protective boots, chemical-resistant clothing (according to EN 465).

Hygiene measures: Minimum standard for protective and hygiene measures as per TRGS 500 if no further protective and hygiene measures are mentioned.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Physical state (25 °C):** liquid**Colour:** reddish**Odour:** nearly odorless**Changes in physical state****solid-liquid:** not fixed**liquid-gaseous:** not fixed**method:****pH value:** 4.2 – 6.5

(100 g/l water, 20 °C)

method: AA-S-002-B**Flash Point:** > 130 °C**method:****Self-ignition temperature:** not applicable**Oxidizing properties:** not applicable**Vapour pressure:** not fixed**Explosion limits:** for diethylene glycol:

lower: 0.7 Vol %

upper: 22 Vol %

Density in g/cm³ (25 °C): approx. 1.1**method:** AA-S-003-B**Bulk density:** not applicable**Particle size:** not applicable**Viscosity:** not fixed**9.2 Other information:****Solubility in water (25 °C):** miscible**Solubility in fat:** not fixed**Partition coefficient: n-octanol/water:** not fixed**SECTION 10: Stability and reactivity****10.1 Reactivity:** Metal corrosion is not expected.**10.2 Chemical stability:** In closed original packages the product is storable for at least 2 years.**10.3 Possibility of hazardous reactions:**

When used indoors, may form flammable/explosive vapour-air mixture.

10.4 Conditions to avoid: Protect from heat.**10.5 Incompatible materials:** unknown**10.6 Hazardous decomposition products:** No hazardous decomposition products if used correctly.

SECTION 11: Toxicological information

All following information refers to the product and in accordance with Regulation (EC) No. 1272/2008.

11.1 Information on toxicological effects**Acute toxicity**

Acute oral toxicity (LD₅₀): > 1000 mg/kg

Species: rat

Source: Statement of the raw material producers

Acute inhalational toxicity (LC₅₀): > 5 mg/l

Species:

Source: Statement of the raw material producers

Acute dermal toxicity (LD₅₀): > 2000 mg/kg

Species:

Source: Statement of the raw material producers

Germ cell mutagenicity: The classification criteria are not met.

Carcinogenicity: The classification criteria are not met.

Reproductive toxicity: The classification criteria are not met.

STOT-single exposure: The classification criteria are not met.

STOT-repeated exposure: The classification criteria are not met.

Aspiration hazard: The classification criteria are not met.

Irritation and corrosive effect

Irritant effect dermal: not irritant

Species:

Source: Statement of the raw material producers

Irritant effect on eyes: not irritant

Species:

Source: Statement of the raw material producers

Sensitization

Sensitization: not sensitizing

Source: Statement of the raw material producers

11.2 Information about other hazards

Endocrine disrupting properties: The substance / the mixture does not meet the criteria for endocrine disrupting properties according to Annex XIII of EC Regulation No.1907/2006.

SECTION 12: Ecological information

All following information refers to the product.

12.1 Toxicity

Fish toxicity LC₅₀ (96 h): > 1000 mg/l - Leuciscus idus

Method:

Source: Statement of the raw material producers

Daphnia toxicity EC₅₀ (48 h): not fixed

Method:

Source: Statement of the raw material producers

Algae toxicity IC₅₀ (72 h): not fixed

Method:

Source: Statement of the raw material producers

Bacteria toxicity EC₁₀: > 1000 mg/l

Method:

Source: Statement of the raw material producers

12.2 Persistence and degradability

Information on elimination: > 80 % readily biodegradable (according to OECD criteria)

Method:

Source: Statement of the raw material producers

12.3 Bioaccumulative potential: No bioaccumulation is to be expected.

12.4 Mobility in soil: No mobility in soil is to be expected.

12.5 Results of PBT and vPvB assessment:

The substance/mixture does not fulfil the criteria for PBT resp. vPvB as per Annex XIII of the EC regulation No. 1907/2006.

12.6 Endocrine disrupting properties

The substance/mixture does not meet the criteria for endocrine disrupting properties according to Annex XIII of the EC Regulation No.1907/2006.

12.7 Other adverse effects

According to Regulation 648/2004/EC on detergents, the product contains < 3 % non-ionic surfactants.

Behaviour in clarification plants: A toxic effect on activated sludge organisms was determined, see bacteria toxicity.

Chemical oxygen demand (COD): not fixed

Method:

Source:

Biological oxygen demand (BOD₅): not fixed

Method:

Source:

AOX advice: does not contain AOX

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal / waste (product): Disposal must be made according to the official regulations.

Waste code / waste designations: The classification of waste codes / waste designations is related to the industrial branch and process specific.

Contaminated packaging: Completely emptied packaging can be consigned to recovery.

Packaging that cannot be cleaned should be disposed of. Cleansing agent for the absolutely emptied packaging: water

SECTION 14: Transport information

Not defined as dangerous substance acc. to the transport prescriptions.

Land transport (GGVS/ADR/GGVE/RID)

Class:	UN no.:	Packing Group (PG):
Labels:	Environmentally hazardous:	Classification Code:
Hazard identification number:		Tunnel code:
Name and description:		

Marine transport (GGVSee/IMDG)

Class:	UN no.:	PG:
EmS:	Marine Pollutant:	
Proper shipping name:		

Air transport (ICAO-TI/IATA DGR)

Class:	UN no.:	PG:
Proper shipping name:		

14.1 UN number

See corresponding entries above in this chapter for „UN-No“

14.2 UN proper shipping name

See corresponding entries above in this chapter for

„Name and description / Proper shipping name“

14.3 Transport hazard class(es)

See corresponding entries above in this chapter for „Labels; Classification Code;

Hazard identification number; Tunnel code“

14.4 Packing group

See corresponding entries above in this chapter for „Packing Group / PG“

14.5 Environmental hazards

See corresponding entries above in this chapter for

„Environmentally hazardous / Marine Pollutant“

14.6 Special precautions for user: none

14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code: not evaluated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

General: The normal safety precautions for handling chemicals must be observed.

Other EU regulations: Observe employment restrictions.

15.2 Chemical safety assessment: An assessment of the chemical safety was not carried out.

SECTION 16: Other information

Relevant H-phrases (number and full text): H302 Harmful if swallowed.

Abbreviations and acronyms:

AGW: workplace threshold limit values

AOX: Absorbable Organic Halogens

ATE: Estimated value for acute toxicity

CAS-No.: Chemicals Abstracts Service No.

CLP: Classification, Labelling and Packaging

DNEL: derived no-effect level

MAK: Working Place Guide Values

PBT-substances: persistent, bioaccumulative and toxic substances

PNEC: predicted no effect concentration

SCL: specific concentration limit

TRGS: Technical Regulations for Hazardous Substances

VOC: (Volatile Organic Compounds)

vPvB-substances: very persistent and very bioaccumulative substances

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Modified chapters are marked at the beginning with a *.