

Ramsauer GmbH &amp; Co KG

4822 Bad Goisern / H.

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****2K MS KLEBER 690, Comp. A****1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**

Adhesive

**1.2.2 Uses advised against**

None known.

**1.3 Details of the supplier of the safety data sheet**

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**1.4 Emergency telephone number****Advisory body** +43 (0) 1 406 43 43 (24h)**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]**

No classification.

**2.2 Label elements**

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

**Hazard pictograms** none**Signal word** none**Hazard statements** none**Precautionary statements** none**Special labelling** EUH210 Safety data sheet available on request.

Contains: N-[3-(Trimethoxysilyl)propyl]ethylenediamine. EUH208 May produce an allergic reaction.

**2.3 Other hazards****Environmental hazards** Does not contain any PBT or vPvB substances.**Other hazards** Further hazards were not determined with the current level of knowledge.

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**SECTION 3: Composition / Information on ingredients****Product-type:**

3.2 The product is a mixture.

Range [%]	Substance
1 - <2,5	Trimethoxyvinylsilane CAS: 2768-02-7, EINECS/ELINCS: 220-449-8, Reg-No.: 01-2119513215-52-XXXX GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332
0,1 - <1	N-[3-(Trimethoxysilyl)propyl]ethylenediamine CAS: 1760-24-3, EINECS/ELINCS: 217-164-6, Reg-No.: 01-2119970215-39-XXXX GHS/CLP: Eye Dam. 1: H318 - Acute Tox. 4: H332 - Skin Sens. 1B: H317 - Aquatic Chronic 2: H411

**Comment on component parts**

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.  
For full text of H-statements: see SECTION 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information**

Take off contaminated clothing and wash before reuse.

**Inhalation**

Ensure supply of fresh air.  
In the event of symptoms seek medical treatment.

**Skin contact**

When in contact with the skin, clean with soap and water.  
Consult a doctor if skin irritation persists.

**Eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

**Ingestion**

Seek medical advice immediately.  
Rinse out mouth and give plenty of water to drink.

**4.2 Most important symptoms and effects, both acute and delayed**

Allergic reactions

**4.3 Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Fire-fighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Foam.  
Carbon dioxide.  
Water spray jet.  
Dry powder.

**Extinguishing media that must not be used**

Full water jet.

**5.2 Special hazards arising from the substance or mixture**

In the event of fire the following can be released:  
Carbon monoxide (CO)  
Nitrogen oxides (NOx).

**5.3 Advice for firefighters**

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.  
High risk of slipping due to leakage/spillage of product.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically.  
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).  
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use only in well-ventilated areas.

Wash hands before breaks and after work.  
Use barrier skin cream.  
Do not eat, drink, smoke or take drugs at work.  
Take off contaminated clothing and wash before reuse.

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

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with food and animal food/diet.  
Keep container in a well-ventilated place.  
Keep in a cool place. Store in a dry place.  
Protect from heat/overheating.

### 7.3 Specific end use(s)

See product use, SECTION 1.2

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**SECTION 8: Exposure controls / personal protection****8.1 Control parameters****Ingredients with occupational exposure limits to be monitored (GB)**

not applicable

**DNEL**

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Industrial, inhalative, Acute - systemic effects: 260 mg/m <sup>3</sup> .
Industrial, dermal, Long-term - systemic effects: 3.9 mg/kg bw/day.
Industrial, inhalative, Long-term - systemic effects: 27.6 mg/m <sup>3</sup> .
general population, oral, Long-term - systemic effects: 300 µg/kg bw/day.
general population, inhalative, Acute - systemic effects: 50 mg/m <sup>3</sup> .
general population, inhalative, Long-term - systemic effects: 6.7 mg/m <sup>3</sup> .
general population, dermal, Long-term - systemic effects: 7.8 mg/kg bw/day.
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
Industrial, inhalative, Acute - systemic effects: 260 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - local effects: 5.36 mg/m <sup>3</sup> .
Industrial, inhalative, Long-term - local effects: 600 µg/m <sup>3</sup> .
Industrial, inhalative, Long-term - systemic effects: 260 mg/m <sup>3</sup> .
general population, oral, Long-term - systemic effects: 8 mg/kg bw/day.
general population, inhalative, Acute - systemic effects: 50 mg/m <sup>3</sup> .
general population, inhalative, Long-term - systemic effects: 50 mg/m <sup>3</sup> .
general population, inhalative, Long-term - local effects: 100 µg/m <sup>3</sup> .
general population, inhalative, Acute - local effects: 4 mg/m <sup>3</sup> .

**PNEC**

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
sediment (seawater), 150 µg/kg.
sediment (freshwater), 1.5 mg/kg.
sewage treatment plants (STP), 6.6 mg/L.
seawater, 40 µg/L.
freshwater, 400 µg/L.
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
sediment (seawater), 22 µg/kg.
sediment (freshwater), 220 µg/kg.
sewage treatment plants (STP), 25 mg/l.
seawater, 0,0062 mg/l.
freshwater, 0,062 mg/l.

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## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
<b>Eye protection</b>	Safety glasses. (EN 166:2001)
<b>Hand protection</b>	0,4 mm Butyl rubber, >120 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	light protective clothing
<b>Other</b>	Avoid contact with eyes and skin. Do not inhale vapours.
<b>Respiratory protection</b>	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
<b>Thermal hazards</b>	no
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	pasty
<b>Color</b>	various
<b>Odor</b>	characteristic
<b>Odour threshold</b>	not determined
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not determined
<b>Boiling point [°C]</b>	not applicable
<b>Flash point [°C]</b>	not applicable
<b>Flammability (solid, gas) [°C]</b>	not determined
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	not determined
<b>Density [g/ml]</b>	1,4 (20 °C / 68,0 °F)
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	virtually insoluble
<b>Partition coefficient [n-octanol/water]</b>	not determined
<b>Viscosity</b>	not applicable
<b>Relative vapour density determined in air</b>	not determined
<b>Evaporation speed</b>	not determined
<b>Melting point [°C]</b>	not determined
<b>Autoignition temperature [°C]</b>	not applicable
<b>Decomposition temperature [°C]</b>	not determined

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See SECTION 10.3.

## 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

## 10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

## 10.4 Conditions to avoid

See SECTION 7

## 10.5 Incompatible materials

Oxidizing agent

## 10.6 Hazardous decomposition products

No hazardous decomposition products known.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product
dermal, Based on the available information, the classification criteria are not fulfilled.:
oral, Based on the available information, the classification criteria are not fulfilled.:
ATE-mix, inhalation (vapour ), > 20 mg/l (4 h).
Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, dermal, Rabbit: 3259 mg/kg bw.
LD50, inhalative, Rat: 16,8 mg/l (4 h) (OECD TG 403).
LD50, oral, Rat: 7120 mg/kg (OECD TG 401).
NOAEL, inhalative, Rat: 0,058 mg/l (98 d).
NOAEL, oral, Rat: < 62,5 mg/kg (28 d) (OECD TG 422).
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LD50, oral, Rat: 2295 mg/kg bw (Lit.).
LD50, dermal, Rat: >2000 mg/kg bw (Lit.).
LC50, inhalative, Rat: 1,49 - 2,44 mg/L (4h) (Lit.).

<b>Serious eye damage/irritation</b>	Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
<b>Respiratory or skin sensitisation</b>	Based on available data, the classification criteria are not met. May cause an allergic skin reaction.
<b>Specific target organ toxicity — single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity — repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Mutagenicity</b>	Does not contain a relevant substance that meets the classification criteria.
<b>Reproduction toxicity</b>	Does not contain a relevant substance that meets the classification criteria.
<b>Carcinogenicity</b>	Does not contain a relevant substance that meets the classification criteria.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>General remarks</b>	Toxicological data of complete product are not available. The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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**SECTION 12: Ecological information****12.1 Toxicity**

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
LC50, (96h), Oncorhynchus mykiss: 191 mg/l.
EC50, Pseudokirchneriella subcapitata: 210 mg/l (7 d) (US-EPA).
EC50, (48h), Daphnia magna: 168,7 mg/l (92/69/EWG C.2).
EC10, Pseudomonas putida: 1000 mg/l (5 h).
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LC50, (96h), Danio rerio: 597 mg/l (Lit.).
EC50, (16h), Pseudomonas putida: 67 mg/l (Lit.).
EC50, (48h), Daphnia magna: 81 mg/l (Lit.).
IC50, (72h), Algae: 8,8 mg/l (OECD 201).
NOEC, (21d), Daphnia magna: > 1 mg/l (Lit.).
NOEC, (72h), Algae: 3,1 mg/l (OECD 201).

**12.2 Persistence and degradability**

<b>Behaviour in environment compartments</b>	not determined
<b>Behaviour in sewage plant</b>	not determined
<b>Biological degradability</b>	The product is not readily biodegradable.

**12.3 Bioaccumulative potential**

not determined

**12.4 Mobility in soil**

not applicable

**12.5 Results of PBT and vPvB assessment**

Based on all available information not to be classified as PBT or vPvB respectively.

**12.6 Other adverse effects**

Ecological data of complete product are not available.  
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

**Product**

For recycling, consult manufacturer.  
Disposal in an incineration plant in accordance with the regulations of the local authorities.

**Waste no. (recommended)**

080410

**Contaminated packaging**

Uncontaminated packaging may be taken for recycling.

**Waste no. (recommended)**150101  
150102

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#### SECTION 14: Transport information

##### 14.1 UN number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

##### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

##### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

##### 14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

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#### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

### SECTION 15: Regulatory information

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

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people no

- VOC (2010/75/CE) 0 %

#### 15.2 Chemical safety assessment

not applicable

### SECTION 16: Other information

#### 16.1 Hazard statements (SECTION 03)

H411 Toxic to aquatic life with long lasting effects.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H332 Harmful if inhaled.  
H226 Flammable liquid and vapour.

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**16.2 Abbreviations and acronyms:**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
 ATE = acute toxicity estimate  
 CAS = Chemical Abstracts Service  
 CLP = Classification, Labelling and Packaging  
 DMEL = Derived Minimum Effect Level  
 DNEL = Derived No Effect Level  
 EC50 = Median effective concentration  
 ECB = European Chemicals Bureau  
 EEC = European Economic Community  
 EINECS = European Inventory of Existing Commercial Chemical Substances  
 ELINCS = European List of Notified Chemical Substances  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
 IC50 = Inhibition concentration, 50%  
 IMDG = International Maritime Code for Dangerous Goods  
 IUCLID = International Uniform Chemical Information Database  
 LC50 = Lethal concentration, 50%  
 LD50 = Median lethal dose  
 LC0 = lethal concentration, 0%  
 LOAEL = lowest-observed-adverse-effect level  
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
 NOAEL = No Observed Adverse Effect Level  
 NOEC = No Observed Effect Concentration  
 PBT = Persistent, Bioaccumulative and Toxic substance  
 PNEC = Predicted No-Effect Concentration  
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
 STP = Sewage Treatment Plant  
 TLV@/TWA = Threshold limit value – time-weighted average  
 TLV@STEL = Threshold limit value – short-time exposure limit  
 VOC = Volatile Organic Compounds  
 vPvB = very Persistent and very Bioaccumulative

**16.3 Other information****Classification procedure****Modified position**

SECTION 2 been added: Further hazards were not determined with the current level of knowledge.

SECTION 8 been added: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.

SECTION 8 deleted: If ventilation is insufficient, wear respiratory protection.

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