



## SAFETY DATA SHEET

### VK 70

*Safety data sheet according to Reg. 29204 / 13.12.2014*

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#### 1. Identification of the substance/mixture and of the company/undertaking

##### 1.1 Identification of the substance / mixture

Product Name : VK 70  
Chemical family : Liquid.

##### 1.2 Identified uses of the substance / mixture and their non-recommended use

Industry : Heating System Biocide

##### 1.3 Safety Data Sheet supplier information

Producer/Supplier : KAMONO KİMYA TİC.LTD.ŞTİ.  
Address : 19 Mayıs Mah. Turaboğlu Sk. H.Yazgan İş merkezi  
No: 4 Kozyatağı / İstanbul  
E-mail : [info@kamono.com.tr](mailto:info@kamono.com.tr)  
Telephone : +90 216 350 8747

##### 1.4 Emergency telephone number

Emergency Phone : +90 216 350 8747  
(Office hours 08:30-17:30)  
National Poison Control phone : 114 (UZEM)

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

According to SEA (28848);

Skin Corr. 1B, H314  
Eye Dam. 1, H318  
Skin Sens. 1, H317  
Aquatic Chronic 2; H411

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#### 2.2. Label elements

##### Hazard symbols



##### Warning Word:

Danger

##### Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

##### Precautionary statements

###### General

No specific data

###### Precaution

P280 - Wear protective gloves: recommended 1-4 hours (working hours): recommended chemical resistant gloves. ( butyl rubber, neoprene,nitrile, polyvinyl chloride (PVC). Protective clothing/eye protection/face protection. Recommended Use protective goggles with side shields. Face protector. Wear protective clothing: Recommended: wear a bare helmet. Wear clothes with long arms. Wear chemical resistant protective gear. Get dressed.

###### Response

P304 + P340+ P331- IF INHALED: Remove person to fresh air and keep comfortable for breathing.Immediately call 114 NATIONAL POISON CENTER. Do not vomit. P303 + P361 + P353 + P310- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call 114 NATIONAL POISON CENTER. P305 + P310 -IF IN EYES Immediately call 114 NATIONAL POISON CENTER.

###### Storage

P405- Store locked up.

###### Disposal

P501 - Dispose of contents/container to in accordance with local regulation .

###### Dangerous compounds

: Reaction mass: 5-chloro-2-methyl-4-isothiazoline-3-on [EC no. 247-500-7] ve 2-methyl-2H - isothiazoline -3-on [EC no. 220-239-6] (3:1);

2.3 Other Hazard : Not available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS



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3.2 Mixtures : Mixture

Material name	Classification	Symbology identifiers	Value (%)
	SEA: RG.-11/12/2013 28848		
Reaction mass: 5-chloro-2-methyl-4-isothiazoline-3-on [EC no. 247-500-7] and 2-methyl-2H - isothiazoline -3-on [EC no. 220-239-6] (3:1)	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)  See section 16 for full text of H declarations declared above.	CAS: 55965-84-9 Endeks: 613-167-00-5	<3

#### 4. First Aid Measures

##### 4.1 Description of first aid measures

**Inhalation** : Get medical attention immediately. Take the victim out into the open air and ensure that they are in a position where they can breathe easily. If you suspect that there is smoke in the environment, the rescuer must use a suitable mask or complex breathing apparatus. If not breathing, give artificial respiration or oxygen by a trained person if breathing is irregular or if respiratory tract is obstructed. Help by mouth breathing may be harmful to the person. If loss of consciousness occurs, place in a proper position and seek immediate medical attention. Leave open air. Loosen the tight parts of your clothing, such as collar, tie, belt or belt. Inhalation of decomposition products in the fire may cause long-



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<b>Skin contact</b>	<p>term symptoms. The exposed person may need to be under medical supervision for 48 hours.</p> <p>: Get medical attention immediately. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing with plenty of water before removing or wearing gloves. Continue shaking for at least 20 minutes. Chemical burns should be treated immediately by a doctor. In case of any complaints or symptoms, avoid re-exposure. Wash your clothes before you use them again. Clean shoes thoroughly before using them again.</p>
<b>Eye contact</b>	<p>: Get medical attention immediately. Immediately flush with plenty of water and occasionally open the upper and lower eyelids. Check and remove contact lenses. Continue shaking for at least 20 minutes. Chemical burns should be treated immediately by a doctor.</p>
<b>Ingestion</b>	<p>: Get medical attention immediately. Wash your mouth with water. If so, remove the dentures. Take the victim out into the open air and ensure that they are in a position where they can breathe easily. If the substance is ingested and the exposed person has no loss of consciousness, give a small amount of water for drinking. As vomiting may be dangerous, stop the exposed person from feeling bad. Do not induce vomiting unless specifically instructed by medical personnel. If vomiting comes in, keep your head down so the vomit does not escape to the lungs. Chemical burns should be treated immediately by a doctor.</p> <p>Never give anything to people who are not in consciousness. If loss of consciousness occurs, place in a proper position and seek immediate medical attention. Leave open air. Loosen the tight parts of your clothing, such as collar, tie, belt or belt.</p>
<b>Protection of first aid workers</b>	<p>: Officers who do not receive the necessary training should not take any action that could cause personal injury. Smoke in the environment. The rescuer must use a suitable mask or complex breathing apparatus. Help by mouth breathing may be harmful to the person. Wash contaminated clothing with plenty of water before removing or wearing gloves.</p>



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#### 4.2 Significant signs and effects seen acutely and later

##### Potential Acute Effects on Health

- Eye contact : Causes serious eye damage.  
Inhalation : Very irritating and abrasive gases, vapors or dusts can be released to the respiratory system.  
Skin contact : Causes severe burns. Causes allergic skin reactions.  
Ingestion : May burn mouth, throat and stomach.

##### Overexposure findings / statements

- Eye contact : Adverse symptoms may include the following: pain, irritation, redness.  
Inhalation : No information.  
Skin contact : Adverse symptoms may include the following: pain or irritation, redness may occur.  
Ingestion : Adverse symptoms may include the following: stomach pain.

#### 4.3 First signs for medical intervention and special treatment

**Notes to physician** In case of inhalation of decomposition products in the fire, prolonged symptoms may occur. The exposed person may need to be under medical supervision for 48 hours.

**Special application** Not required.

### 5. Firefighting Measures

#### 5.1 Fire extinguishers

- Suitable Extinguishing Media : Use a suitable extinguishing media to contain the fire.  
Unsuitable Extinguishing Media : No information.

#### 5.2 Specific hazards arising from the substance or mixture

- Hazardous Combustion : In a fire or if heated, a pressure increase and the container may





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#### 6.3 Methods and materials for preservation and cleaning

##### Spilling

If there is no risk, stop the leak. Move the containers from one place to another. Swing, take the wind behind you. Prevent entry into sewers, water system, basements or confined areas. Wash spillages into a liquid waste treatment facility and continue as directed below. Spread the spilled material around non-combustible absorbent materials such as sand, earth, vermiculite, and diatomaceous earth and place in a container to dispose of in accordance with local regulations. Dispose of it with the help of a licensed waste disposal contractor. Based on the current information provided by the supplier, and in applicable concentrations, there are no added ingredients or ingredients that are classified as harmful to health or environment and therefore must be reported in this section.

#### 6.4 References to other sections

See section 1 for emergency contact information.

Refer to Section 8 for information on suitable personal protective equipment.

See Section 13 for additional information on disposal of wastes.

## 7. Handling and Storage

#### 7.1 Precautions for safe handling

##### Precautions

Wear appropriate personal protective equipment (see Section 8). Persons with skin sensitization problems in the past should not be employed in any job where this product is used. Do not contaminate eyes or skin or clothing. Do not breathe vapor or mist. Do not swallow. If the substance presents a respiratory hazard during normal use, use an approved respirator when there is adequate ventilation. Keep in original container or an approved alternative made from harmonized material. Keep container tightly closed when not in use. Residual product residues may remain in empty containers and may be dangerous. Do not reuse the container.

##### Advice on general occupational hygiene

This material is handled, stored and where food is processed, Drinking and smoking should be prohibited. Workers must wash their hands before eating, drinking or smoking. Remove contaminated clothing



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and protective equipment before entering food recreation areas. See also Section 8 for additional information on hygiene measures.

#### 7.2 Conditions for safe storage with incompatibilities

Store at the temperatures specified below: 1 - 55 ° C (33.8 - 131 ° F) Store in accordance with local regulations. Direct sun  
Store in a dry, cool and well-ventilated area protected from light, in materials that are incompatible (see Chapter 10) and in original containers away from foodstuffs and beverages. Keep it under lock. Keep the container tightly closed until use is ready and do not open the seal. The opened containers must be carefully resealed in a leak-tight manner and held upwards to prevent flow. Do not store in untagged cups. Use a suitable container to avoid contamination.

#### 7.3 Certain end-uses

**Advice** : No information  
**Specific advice for the industrial sector** : No information.

## 8. Exposure Controls / Personal Protection

### 8.1 Control parameters

#### Occupational exposure limits

No known exposure limits value.

#### Recommended screening procedure

No available.

#### DNEL's / DMEL's

No DNEL's / DMEL's ready to use.

#### PNEC's

No PNEC's ready to use.

### 8.2 Exposure controls

#### Appropriate engineering controls





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If dust, smoke, gas or steam is generated during operation, local ventilation, or other engineering controls to ensure that workers are exposed to airborne contaminants below recommended legal limits.

#### **Personel protective equipments**

##### **Hygienic measures**

: Wash thoroughly your hands, arms and face after using chemical products, before eating, before smoking, before using the toilet and at the end of the working period. Appropriate techniques are used to remove the infected garment from the center. Do not leave contaminated clothing out of the workplace. Wash the dirty clothes before using again. Ensure that eyewash stations and emergency showers are close to where the work area is located.

##### **Eye contact**

: In order to avoid exposure to liquid splashes, fumes, gases or dust, safety glasses in accordance with an approved standard should be used at risk. If there is a possibility of contact, the following protective device must be fitted, unless the evaluation indicates that the protection is of a higher degree: eyeglasses and / or face shield used against chemical spatter. If there is a risk of inhalation, a respirator with full face protection may be required.

Recommended: Use protective goggles with side shields. Face protector.

#### **Skin measures**

##### **Hand protection**

If a risk assessment is required, chemical resistant water or non-breathing gloves compatible with a certified standard when working with chemical products should always be worn. Considering the parameters defined by the glove maker, check that the gloves retain their protective properties during use. It should be noted that the permeability time of any glove material may be different for different glove manufacturers. As far as mixtures are concerned, it may not be possible to calculate the duration of protection of gloves precisely, given that they are formed from several substances. 1 to 4 hours (working time): Recommended: Chemical resistant gloves. (Butyl rubber, neoprene, nitrile, polyvinyl chloride (PVC))



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<b>Skin protection</b>	Wear suitable protective clothing, gloves and eye / face protection. Recommended: wear a bare helmet. Wear clothes with long arms. Chemical resistant protective suit. Get dressed.
<b>Other skin protection</b>	The use of shoes and the application of any additional skin protection measures must be determined in advance and selected according to the work being done and the risks involved, and this product must be approved by an expert before commencing the process. Recommended: Wear safety shoes.
<b>Respiratory system protection</b>	Choose a gas mask that meets the appropriate standard or certification on the basis of explosion hazard and potential. Gas masks must be used in accordance with a respiratory protection program in order to ensure correct attachment, training and other important uses. Recommended: Emergency case: full face mask. Filter type: organic vapor filtration (Type A), inorganic gas / vapor filtration (Type B), ammonia (Type K) and particle filter.
<b>Environmental exposure controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, said emission process equipment, fume scrubbers to reduce to acceptable levels, the filter should be applied or engineering modifications should be made.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

<b>Physical State</b>	: Liquid
<b>Colour</b>	: Colourless
<b>Odour</b>	: Characteristic
<b>Threshold of odour</b>	: No information.
<b>pH</b>	: 2 – 4
<b>Melting/freezing point</b>	: -3°C
<b>Initial boiling point and boiling range</b>	: 100 °C
<b>Flash point</b>	: >100 °C ( closed cup)
<b>Evaporation rate</b>	: No information.



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<b>Flammability (solid, gas)</b>	: No data available.
<b>Combustion time</b>	: No data available.
<b>Combustion rate</b>	: No data available.
<b>Upper/lower flammability or explosive limits</b>	: No data available.
<b>Vapour pressure</b>	: No data.
<b>Vapour density</b>	: No data.
<b>Relative density</b>	: No data.
<b>Density</b>	: $1.00 \pm 0.05 \text{ g/cm}^3$
<b>Solubility</b>	: No data.
<b>Solubility in water</b>	: Fully soluble.
<b>Partition coefficient n-octanol-water</b>	: No data.
<b>Ignition temperature</b>	: No data.
<b>Degradation temperature</b>	: No data.
<b>Viscosity</b>	: No data.
<b>Explosive properties</b>	: No data.
<b>Oxidizing properties</b>	: No data.

#### 9.2 Additional information

No data.

#### 10. Stability and Reactivity

<b>10.1 Reaction</b>	: There are no specific test data on the reactivity of this product or its ingredients.
<b>10.2 Chemical stability</b>	: Product; stable.
<b>10.3 Hazardous reaction Probability</b>	: Under normal conditions of storage and use, hazardous reactions do not occur.
<b>10.4 Situations to avoid</b>	: No data.
<b>10.5 Substances to avoid</b>	: No data.
<b>10.6 Harmful products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not occur. Hazardous combustion products: See section 5.2 on the safety data sheet.



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#### 11. Toxicological Information

##### 11.1 Information on toxic effects

###### Acute toxicity

Product / ingredient name	Results	Types	Dose	Exposure
Reaction mass: 5-chloro-2-methyl-4-isothiazoline-3-on [EC no. 247-500-7] and 2-methyl-2H - isothiazoline -3-on [EC no. 220-239-6] (3:1)	LC50 Inhalation powders and pus	Rat	0.33 mg/l	4 hours

**Irritating/corrosive** : No data.

**Sensitiveness** : No data.

**Mutagenic** : No data.

**Carcinogenic** : No data.

**Reproduction** : No data.

**Developmental toxicity:** No data.

**STOT single exposure:** No data.

**Aspiration toxicity** : No data.

###### Potential Acute Effects on Health

Eye contact : Causes serious eye damage.

Inhalation : Very irritating and abrasive gases, vapors or dusts can be released to the respiratory system.

Skin contact : Causes severe burns. Causes allergic skin reactions.

Ingestion : May burn mouth, throat and stomach.

###### Information on physical, chemical and toxicological properties

Inhalation : No information.

Ingestion : Adverse symptoms may include the following: stomach pain.



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#### 12. Ecological Information

##### 12.1 Toxicity

Product / ingredient name	Results	Types	Exposure
Reaction mass: 5-chloro-2-methyl-4-isothiazoline-3-on [EC no. 247-500-7] and 2-methyl-2H - isothiazoline -3-on [EC no. 220-239-6] (3:1)	Acute EC50 0.027 mg/l	- Embriyo	72 hours
	Acute EC50 0.12 mg/l	Algea	48 hours
	Akut LC50 0.19 mg/l	Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	96 hours

##### 12.2 Permanence and degradability

Product / ingredient name	Half life in water	Photolysis	Biodegradable
Reaction mass: 5-chloro-2-methyl-4-isothiazoline-3-on [EC no. 247-500-7] and 2-methyl-2H - isothiazoline -3-on [EC no. 220-239-6] (3:1)	-	-	Not readily.

##### 12.3 Potential for bioaccumulation

Product / ingredient name	LogP <sub>o</sub>	BCF	Potential
Reaction mass: 5-chloro-2-methyl-4-isothiazoline-3-on [EC no. 247-500-7] and 2-methyl-2H - isothiazoline -3-on [EC no. 220-239-6] (3:1)	-0.71-0.75	3.6	Low

##### 12.4 Mobility in the earth

Soil /Water distribution (K<sub>oc</sub>) No data

Mobility No data



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#### 12.5 Results of PBT and vPvB evaluation

**PBT** No data available.  
**vPvB** No data available.

**12.6 Other adverse effects** There is no well-known side-effect or important danger.

#### 13. Disposal Considerations

##### 13.1 Waste treatment methods

###### Product

**Waste treatment method** The generation of waste should be avoided or reduced as far as possible. Any disposal of the product, solutions, and anything that is near the product should always be in accordance with environmental protection and waste disposal laws and with the instructions of the local authority of any area. Disposal of oversized and non-recyclable products by a licensed waste contractor. Untreated wastes should not be put into sewerage if they do not comply with the requirements of all competent authorities.

**Hazardous waste** The classification of the product must comply with hazardous waste criteria.

###### Packaging

**Waste treatment method** The generation of waste should be avoided or reduced as far as possible. The packaging of the waste should be recycled. Burning or embedding should only be considered where recycling is not feasible.

###### Special methods

This material and its container must be disposed of in a safe manner. Personnel should wear protective clothing. Care should be taken to protect against inflammation and irritation which may result in contact with dust on the neck and wrists in the selection of protective clothing. Product residues may remain in empty containers or lining materials. Avoid spillage of material spills, runoff and contact with drains, drains, sewers.

#### 14. Transport Information

	ADR/RID	ADN	IMDG	IATA



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<b>14.1 UN number</b>	UN3265	UN3265	UN3265	UN3265
<b>14.2 Proper UN transport name</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
<b>14.3 Transportation hazards class(es)</b>	8	8	8	8
<b>14.4 Packaging group</b>	II	II	II	II
<b>14.5 Environmental damage</b>	Yes	Yes	Yes	Yes
<b>Other information</b>	Hazard identification number: 80 Limited amount : 1 L Special conditions : 274 Tunnel code : (E) Shipping category: 2	Special conditions : 274	The marine pollutant mark is not required when transported in sizes of ≤ 5 L veya ≤ 5 kg <b>Emergency schedules (EmS)</b> F-A,S-B <b>Special provisions:274</b>	The environmentally hazardous substance mark may appear if required by other transportation regulations. <b>Passenger and Cargo aircraft: 1 L</b> Packing instructions : 851 <b>Cargo Aircraft Only</b> <b>Quantity limitation :</b> 30 L Packing instruction: 855 <b>Limited Quantities-Passenger Aircraft sınırlaması :</b> Quantity limitation : 0.5 L Packaging instructions : Y840 <b>Special provisions</b> A3, A803



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**14.6 Special precautions for the user** : Transport in user-assigned areas: Always keep it upright and secure in closed containers. Give the person carrying this product the necessary information about what to do in case of an accident or spill.

**14.7 MARPOL 73/78, Annexe II and** : No data available.

**Bulk transport by IBC code**

## 15. Regulatory Information

### 15.1 Safety, health and environmental legislation specific to substance or mixture

By-Law on Preparation Safety Data Sheets of Substances and Mixtures [13.12.2014- 29204 official gazette]

By-Law on Classification, Labelling and Packaging of Substances and Mixtures [R.G. 11/12/2013-28848 – repeating]

By-Law on Transportation of Hazardous Substances by Highway [R.G. 24/10/2013-28801 official gazette]

## 16. Other Information

Shows the information that was changed in the previous post

### Abbreviations and synonyms

ATE = The acute toxicity estimate  
CLP = classification, labelling and packaging [Regulation (CE) 1272/2008]  
DMEL = Derived Minimal Effect Levels  
DNEL = Derived-No-Effect-Levels  
EUH statements = CLP- Special Hazard Reward  
PBT = Persistent, Bioaccumulative and/or Toxic chemicals  
PNEC = The Predicted No Effect Concentration  
RRN = REACH registration number  
vPvB = very Persistent, very Bioaccumulative





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#### Full abbreviated H expressionsText

H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

#### Full text about classifications [CLP/GHS]

Acute Tox. 2, H310	ACUTE TOXICITY (dermal) Category 2
Acute Tox. 2, H330	ACUTE TOXICITY (inhalation) - Category 2
Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Aquatic Acute 1, H400	ACUTE AQUATIC TOXICITY - Category 1
Aquatic Chronic 1, H410	LONG-LASTING AQUATIC TOXICITY - Category 1
Eye Dam. 1, H318	SERIOUS EYE DAMAGE / EYE IRRITATION - Category 1
Skin Corr. 1B, H314	SKIN IRRITATION / IRRITATION - Category 1B
Skin Sens. 1, H317	SKIN SENSITIVITY - Category 1

#### Revision statement

SEA is regulated according to the regulations.

These data sheet compliments the technical data sheet but doesn't replace it. The information and recommendations given are based on the best information that firm have and are believed accurate and reliable at the date publication. This safety data sheet should not be considered exhaustive and on no account does it exempt the user from ensuring that any property rights, existing laws and regulating are observed.