

## Material Safety Data Sheet

<b>Manufacturer :</b>	ARCHEM Co. O.S.B. İkitelli San. Sit. B-2 Blok No:4 İkitelli / ISTANBUL TURKEY
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### 1. Identification of the preparation.

	<b>CAT NO.</b>
<b>ALAT 5*100</b>	<b>A2290</b>
<b>ALAT 5*50</b>	<b>A2291</b>
<b>ALAT BULK</b>	<b>A2290B</b>

### 2. Composition / information on components.

<b>Dangerous components:</b>		
<b>1- PHOSPHORUS; 1-REAGENT</b>		
<b>hydrochloric acid</b>		Contains: < 1%
CAS number:	7647-01-0	
WE number:	231-595-7	
Index number:	017-002-01-32(37)	Harmfulness: C Phrases: R 34-37; S 26-36/37/39-45
<b>sulfuric acid 95-97% (VI)</b>		Contains: < 1,8%
CAS number:	7664-93-9	
WE number:	231-639-5	
Index number:	016-020-00-8	Harmfulness: C Phrases: R 35; S 26-30-45
<b>2- STANDARD:</b>		
<b>hydrochloric acid</b>		Contains: 1,02%
CAS number:	7647-01-0-32(37)	
WE number:	231-595-7	
Index number:	017-002-01	Harmfulness: C Phrases: R 34-37; S 26-36/37/39-45

### 3. Hazards Identification.

#### 1- PHOSPHORUS; 1-REAGENT

Irritating

Irritating to eyes and skin

### 4. First-Aid Measures.

**After exposure by respiratory passages:** fresh air. Call in physician.

**After skin contamination:** wash off with large amount of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.

**After eye contact:** rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophtalmologist.

**After swallowing:** make victim drink plenty of water, avoid vomiting. (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

### 5. Fire Fighting Measures:

***Suitable extinguishing media:***

In adaptation to materials stored in the immediate neighbourhood.

***Special risks:***

Non-combustible. Ambient fire may liberate hazardous vapours. Hydrogen may form upon contact with Metals (danger of explosion !). The following may develop in event of fire: sulfur oxides.

***Special protective equipment for fire fighting:***

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

***Other information:***

Prevent fire-fighting water from entering surface water or groundwater. Contain escaping vapours with water.

### 6. Accidental Release Measures:

***Person-related precautionary measures:***

Do not inhale vapours/aerosols. Avoid substance contact.

***Cleaning /absorption procedures :***

Collect small quantities with the use of an absorbing agent, rinse with large amount of water if necessary.

### 7. Handling and Storage:

***Procedures:***

In accordance with the norms generally accepted for chemicals in laboratories.

***Storage:***

Hermetically closed. In temperature from +2°C do +8 °C.

### 8. Exposure Controls/ Personal Protection:

***Appropriate control parameter:***

See Turkish regulations.

hydrochloric acid: NDS – 5 mg/m<sup>3</sup>, NDSCh – 10 mg/m<sup>3</sup>.

sulfuric acid: NDS – 1 mg/m<sup>3</sup>, NDSCh – 3 mg/m<sup>3</sup>.

**Personal protective equipment:**

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

**Respiratory passages:** Apply in rooms with efficiently working ventilation, avoid inhaling product mists, use respiratory tract-protective agents  
**Eyes:** avoid direct contact of the product with eyes use glasses. **Hands:** avoid direct contact of the product with skin, immediately take off clothes soiled with the preparation and wash contaminated skin with soapy water, use personal protective, clothing and protective gloves: In full contact: In splash contact: Glove material: nitrile rubber  
 Glove material: nitrile rubber Layer thickness: 0,11 mm Layer thickness: 0,11 mm  
 Breakthrough time: > 480 Min. Breakthrough time: > 480 Min.

**Industrial hygiene:** you must not have meals, drink, or smoke tobacco while working with the preparation, except in places designed for that purpose. Wash your hands after work with the substance carefully with soapy water. Apply skin-protective barrier cream.

## 9. Physical and Chemical Properties.

	1-PHOSPHORUS: 1-REAGENT	2- STANDARD:
Form:	clear solution	clear solution
Colour:	colourless	colourless
Odour:	odourless	odourless
Vapour pressure:	no data available	no data available
Boiling temperature:	no data available	no data available
Melting temperature:	no data available	no data available
Ignition temperature:	incombustible	incombustible
Flammability:	incombustible	incombustible
Density:	1,006 g/cm <sup>3</sup> 20 °C	0,998 g/cm <sup>3</sup> 20 °C
pH	1 - 2 ( 25 °C)	1 – 2 (20-25 °C)

## 10. Stability and Reactivity:

**Conditions that should be avoided:**

The preparation is stable in conditions provided by the manufacturer.

**Substances that should be avoided:**

Alkali metals, carbides, hydrides, fluorine, aluminium, metals, potassium permanganate, aldehydes, sulfides, lithium silicide, vinylmethyl ether, semimetallic oxides, semimetallic hydrogen compounds, salts of oxyhalogenic acids,.

**Dangerous decomposition products:**

See chapter 5.

**Further information:**

Unsuitable working materials: metals, metal alloys, animal/vegetable tissues.

## 11. Toxicological Information:

**No data for the preparation. The preparation toxicity evaluation is based on evaluation of the toxicity of particular components. hydrochloric acid**

**Acute toxicity;**

LC50 (inhalation, rat): 3124 ppm(V)/l/1 h (calculated on the pure substance);

**Further toxicological information; information;**

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**After inhalation;** Irritations of the mucous membranes, coughing, and dyspnoea.

**After skin contact;** burns

**After eye contact;** burns, Risk of blindness!

**After swallowing;** Damage of: mouth, oesophagus and gastrointestinal tract. Risk of perforation the oesophagus and stomach. After a latency period; cardiovascular failure.

**Further data;**

Further hazardous properties cannot be excluded.

The product should be handled with the care usual when dealing with chemicals.

**sulfuric acid**

**Acute toxicity:**

LC50 (inhalation, rat): 510 mg/m<sup>3</sup> /2 h (calculated on the pure substance);

LC50 (oral, rat): 2140 mg/kg (Using 25% solution).

**Specific symptoms in animal studies:**

Eye irritation test (rabbit): burns.

Skin irritation test (rabbit): burns.

Toxicologic values are not available due to other dangerous properties of the substance.

**Subacute to chronic toxicity:**

Applicable to partial component(s):

Bacterial mutagenicity: Ames test: negative.

No teratogenic effect in animal experiments.

**Further toxicological information:**

Property that must be anticipated on the basis from the components of the preparation:

After inhalation of aerosols: damage to the affected membranes.

After skin contact: severe burns with formation of scabs.

After eye contact: burns, corneal lesions.

After swallowing: severe pain (risk of perforation!), nausea, vomiting and diarrhoea.

After a latency period of several weeks possibly pyloric stenosis.

**Further data:**

The product should be handled with the care usual when dealing with chemicals.

## 12. Ecological Information:

**No data for the preparation. The evaluation was performed on the basis of the properties of its components.**

### **hydrochloric acid**

#### **Ecotoxic effects;**

Quantitative data on the ecological effect of this product are not available.

#### **Biological effects;**

Toxic effect on fish and plankton. Forms corrosive mixtures with water even if diluted. Damage to plant growth.

#### **Further ecologic data;**

The following applies to HCl in general; Harmful effect on aquatic organisms. Harmful effect Due to pH shift. Biological effects; hydrochloric acid (including such due to reaction): lethal For fish as from 25 mg/l; *Leuciscus idus* CL50: 862 mg/l (1 N-solution); Harmful effects begin at: 6 mg/l. Does not cause biological oxygen deficit.

Do not allow to enter waters, waste water, or soil! **Biologic degradation:**

Methods for the determination of biodegradability are not applicable to inorganic substances.

#### **Behavior in environmental compartments:**

Concentration in organisms is not to be expected

#### **Ecotoxic effects:**

Quantitative data on the ecological effect of this product are not available.

#### **Further ecologic data:**

The following applies to sulfuric acid: biological effects: harmful effect on aquatic organisms. Harmful effect due to pH shift. Toxic effect on fish and algae. Caustic even in diluted form. Does not cause biological oxygen deficit. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities. Neutralization possible in waste water treatment plants. *Daphnia* toxicity: *Daphnia magna* EC50: 29 mg/l/24 h (calculated on the pure substance). Do not allow to enter waters, waste water, or soil!

## 13. Disposal Considerations:

### **Product:**

Chemical residues, in general, are included into special waste. Disposing of the latter is regulated by appropriate laws and ordinances. We recommend contacting the appropriate authorities, or waste disposal enterprises that will advise you on how to dispose of special waste.

### **Packing:**

Remove in accordance with official regulations. Treat contaminated packages in the same way as the substance itself. If the regulations do not provide otherwise, non-contaminated packages can be treated like household waste or forward them to be utilized.

## 14. Transportation Information:

The product is not subject to transport regulations.

## 15. Regulatory Information:

**Material Safety Data Sheet was prepared in accordance with:**

The EC Directive Nr UE2001/58/WE, the EC Directive Nr 1999/45/EG, the EC Directive 67/548 EEC, EC Directive 88/379/EEC or the EC Directive 91/155/EEC (Dangerous Product Regulations incl. EC Guidelines). See Turkish regulations.

**Marking:**

**Irritating**

Contains sulfuric acid

**Xi – Irritating;**

*Risk phrases (R):*

**R 36/38 – Irritating to eyes and skin.**

*Safety phrases (S):*

**S 26-28-30-45 –In case of contact with eyes, rinse immediately with plenty of water and see medical advice. After contact with skin, wash immediately with plenty of water. Never add water to this product. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).**

**16. Other Information.**

**R 36/38 – Irritating to eyes and skin.**

The foregoing information is based on the present state of our knowledge. It characterizes the product with respect to the appropriate safety measures. They do not guarantee the properties of the product. We do not take responsibility for damage and losses that may result from inappropriate use of the preparation.

Reason of changes: General updating.

*The foregoing safety chart prepared in electronic version is legally valid without sign manual.*