

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)


ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name	ACETIC ACID
SDS¹ No	193246
CAS² No	64-19-7
EINECS³ No	200-580-7
Chemical Name	Acetic acid
Chemical Formula	C ₂ H ₄ O ₂
Structural Formula	

1.2 Relevant Identified Uses Of The Product And Uses Advised Against

Relevant Identified Uses	Used in the various acetates, acetyl compounds, the production of artificial silk, producing rubber and plastic. Also used in leather and silk print editions and used as a food preservative substance. Used as a solvent for many organic substances. Used in acid compounds which are containing phosphorus and halogen. In addition, used in a lot of commercial chemical synthesis as a common.
Uses Advised Against	See chapter 16 for a general overview

1.3 Details Of The Supplier Of The Safety Data Sheet

Supplier (Manufacturer)	AK-KİM KİMYA SAN. VE TİC. A.Ş. www.akkim.com.tr
Address – Factory	Denizçalı Köyü, Taşköprü Mevkii, P.K. 39 77600 Yalova / TÜRKİYE
Telephone	0 226 815 33 00
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1.4 Information Providing Authority About Safety Data Sheet

	Ali Haydar KETİR – Environmental Engineer
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1.5 Emergency Telephone Number

Company Emergency	0 226 815 33 00
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2. HAZARDS IDENTIFICATION

2.1 Classification Of The Product

2.1.1 Classification According to Regulation (EC) No 1272/2008

- Flammable liquids, Category 3; H226
- Skin corrosion, Category 1A; H314

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

2.2 Label elements

2.2.1. Labeling According to Regulation (EC) No 1272/2008 [CLP⁴/GHS⁵]

Product Identifier

Hazard Component for Labeling

· ACETIC ACID

Hazard Pictograms



Signal Word

· Danger

Hazard Statements

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

Precautionary Statements

General

· None

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P307+P310 IF exposed: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

· None

Disposal

· None

Supplemental Hazard Information (EU) Statements

· None

2.2.2. Special Rules For Supplemental Label Elements For Certain Mixtures

· None.

2.2.3. Additional Labeling

· Not Applicable

2.3 Hazard Identification

2.3.1. Skin Contact

Harmful if absorbed through skin. Causes skin burns.

2.3.2. Eye Contact

Causes eye burns.

2.3.3. Ingestion

May be harmful if swallowed. Causes burns.

2.3.4. Inhalation

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

 Version: 1.0
 Form No: 193246

 Preparation Date : 10/11/2013
 Revision Date: 10/11/2013

Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

2.3.5. Long term effects

No data available

2.3.6. Adverse Environmental Effects


No data available

2.4. Additional Information

· None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Description Of The Substance: Acetic acid ($\geq 99,5\%$)

NAME	EINECS NO	CAS NO.	CONTENT (%)	CLASSIFICATION
				CLP
Acetic acid	200-679-5	68-12-2	> 99,5	 DANGER Flammable liquids, Category 3; H226 Skin corrosion, Category 1A; H314

3.2 Additional information

· None

4. FIRST AID MEASURES

4.1 Description of first aid measures
4.1.1 General information

- Remove contaminated clothing.
- In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.1.2 Following inhalation

- Whilst protecting yourself remove the casualty from the hazardous area and take him to the fresh air.
- Lay the casualty down in a quiet place and protect him against hypothermia.
- In the case of breathing difficulties have the casualty inhale oxygen.
- In case of shortness of breath place the casualty in a half-sitting position.
- As soon as possible repeatedly have the casualty deeply breath a glucocorticoid inhalation spray in.
- Ensure fast examination by a physician.

4.1.3 Following skin contact

- Remove contaminated clothing while protecting yourself.
- Rinse the affected skin areas for 10 minutes under running water.
- Arrange medical treatment.
- After wetting of large areas, immediate rinsing or showering, if possible.
- Lay the casualty down in a quiet place and protect him against hypothermia.
- Summon an emergency physician.

4.1.4 Following eye contact

- After contact with concentrated vapours, aerosols, acid splashes.

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

- Rinse the affected eye with widely spread lids for 10 minutes under running water whilst protecting the unimpaired eye.
- As soon as possible aim a mild water jet directly at the eye to remove acid residuals completely.
- Afterwards, ensure the quickest possible transport to an ophthalmologist.

4.1.5 Following ingestion

- After ingestion of acid concentrations > 10%.
- If the casualty is conscious have him drink copious amounts of liquids (water).
- Lay the casualty down in a quiet place and protect him against hypothermia.
- Do not make the casualty vomit.
- Call an emergency physician.
- In the event of spontaneous vomiting, keep the patient in a prone position with the head lower than the feet in order to prevent vomit from entering the trachea.

4.1.6 Self-protection of the first aider

- Pay attention to self-protection

4.1.7 Notes for the doctor

- Symptoms of acute poisoning:
- Eyes: Vapours/aerosols or highly diluted solutions cause burning sensations/piercing pains, lacrimation, lid spasms, conjunctivitis; from concentrations > 1% increasing corrosive effects: Severe pain, turbidity.
Inflammation of the cornea, delayed iritis, synechiae and other symptoms.
- Skin: Irritative effects, as of approx. 50% pronounced corrosive effects: Reddening, swelling, formation of blisters, necrotising (blackish).
Resorptive effects cannot be excluded.
- Inhalation: Tingling/piercing sensation in the nose, tickling of the throat and similar symptoms, concentrated exposure leads to pharyngeal, glottic, pulmonary oedema or pneumonia; resorptive effects are unlikely to appear.
- Ingestion: Acutely life-threatening in concentrated form (> 10%).
Severe chemical burns at the affected mucosa with heavy pains; bloody vomiting, diarrhoea; oesophagus/stomach perforation hazard, bleeding in the large and small intestines.
- Often state of shock, possibly reflective cardiac arrest; resorptive effects in the event of slower processes;
- Resorption: more or less pronounced acidosis, haemolysis/haemorrhagic diathesis -> renal failure.
- Possible consequential damage: Strictures/stenoses in oesophagus/stomach; [07656] possible liver necrosis.
- First medical assistance:
- Eye contact requires immediate follow-up examination by an ophthalmologist after performance of the first aid measures (intensive rinsing with water/phys. NaCl solution; pain treatment, sterile covering).
- Ensure persistent rinsing of the contaminated skin areas. Apply flumetasone foam afterwards. Ensure sterile covering of affected skin areas. Corrosion of large areas might require shock treatment (see below).
- After inhalation of concentrated vapours/aerosols: Administer high doses via inhalation and i.v., ensure use of antibiotics, administer oxygen, codeine against the urge to cough.

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

- Monitor cardiovascular functions. Provide respiratory support in case of laryngospasms or bronchospasms; when the casualty suffers from bronchospasms also administer bronchodilators. After ingestion have the casualty drink a lot of fluids, but by no means induce vomiting and do not administer activated charcoal.
 - An early endoscopy (by an experienced practitioner) should be considered (decision according to hospital/patient history/other findings). In hospital the physicians might try to aspirate the gastric content through a soft, flexible stomach tube (under direct-vision).
 - Pulmonary or glottic oedema prophylaxis (see above) is also indicated after ingestion.
 - When symptoms of shock are present: Infuse plasma expander; avoid the use, or considerably reduce the amount of, dextran (Infukoll M40) to prevent thickening of the urine. Further treatment depends on the symptoms.
 - The first measures to be taken after admission to the hospital are the determination/correction of the acid-base status, pain treatment, shock therapy (if required), monitoring of the kidney, liver, cardiovascular, and pulmonary functions and the blood count and coagulation status.
 - The recommended therapeutic measures include liver protection therapy and - in case of severe haemolysis - haemodialysis or exchange transfusion.
- Recommendations:**
- Provide the physician information about the substance/product and treatment already administered.

5. FIRE-FIGHTING MEASURES

5.1 General Information and Flammable Properties

- The substance/product is combustible
- Class of fires: B / liquid or melting substances

5.2 Extinguishing media:

- Water (spray - not splash)
- Dry extinguishing powder
- Carbon dioxide
- Fight large fire with alcohol resistant foam or water spray.

5.3 Unsuitable extinguishing media

- None known.

5.4 Special hazards arising from the product

- Carbon oxides.

5.5 Advice for fire-fighters

- Wear NIOSH⁶ approved breathing apparatus, eye and face protector and chemical resistant clothes.
- Cool all affected containers with flooding quantities of water.
- If possible, take container out of dangerous zone.
- Heating causes a rise in pressure, risk of bursting and explosion.
- Shut off sources of ignition.
- Beware of backfire.
- Do not allow runoff to get into the sewage system.

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

5.6 Additional information

- Use water spray to cool unopened containers.
- Contaminated extinguishing water must be disposed of in accordance with official regulations
- Do not allow the quenching water into sewage systems

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Avoid inhalation of vapors, mist or gas.
- Ensure adequate ventilation.
- Shut off all sources of ignition.
- Evacuate personnel to safe areas
- Beware of vapours accumulating to form explosive concentrations.
- Vapours can accumulate in low areas.
- Refer to protective measures listed in section 7 and 8.
- Put on protective equipment before entering danger area.

6.2 Environmental precautions

- Cover drains.
- Do not allow to enter into soil/subsoil.
- Do not empty into drains or the aquatic environment.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment

- Control personal contact by using protective equipment as required
- Take up contaminated material and pass on for further processing.
- Contain for disposal according to local / national regulations.

6.3.2 For cleaning up

- Use protective equipment while cleaning if necessary.
- Use electrically protected vacuum cleaner or by wet-brushing.
- Only conduct maintenance and other work on or in the vessel or closed spaces after obtaining written permission.
- Only work with vessels and lines after they have been thoroughly rinsed.

6.3.3 Other information

- Dispose of waste material according to local, state and federal regulations.

6.4 Reference to other sections

- Dispose of contaminated material as waste in accordance with section 13.
- See Section 13.

7. HANDLING AND STORAGE

7.1.1 Precautions for safe handling

7.1.2 Protective measures

Personal preventions

- Depending on the risk, wear a tight, long apron and boots or suitable chemical protection clothing.
- Wear flameproof protective clothing.

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

- The protection clothing should be solvent resistant..Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Fire preventions

- The substance/product is combustible
- Take measures to prevent the build up of electrostatic charge.
- See section 5.

Environmental precautions:

- Dispose of waste material according to local, state and federal regulations.

7.1.3 Advice on general occupational hygiene

- Use good occupational work practice.
- Comply with the health and safety at work laws.
- Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

- Keep in a cool place. Keep container dry.
- Keep container in a well-ventilated place
- Store in original containers.
- Check all containers are clearly labelled and free from leaks.
- Keep containers securely sealed when not in use
- Avoid contact with incompatible materials
- Avoid physical damage to containers.

STORAGE INCOMPATIBILITY

- Segregate from oxidants

7.1 Advice on common storage

- Do not use any food containers - risk of mistake.
- Containers have to be labelled clearly and permanently.
- Store in the original container as much as possible.
- Keep container tightly closed.
- Store in a cool place.
- Store in a dry place.
- Keep container in a well-ventilated place.

7.2 Specific precautions on storage

- Storage class 3 (Flammable liquid substances)

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

- Only substances of the same storage class should be stored together.
- Collocated storage with the following substances is prohibited:
 - Pharmaceuticals, foods, and animal feeds including additives.
 - Infectious, radioactive und explosive substances.
 - Gases.
 - Other explosive substances of storage class 4.1A.
 - Flammable solid substances or desensitized substances of storage class 4.1B.
 - Spontaneously flammable substances.
 - Substances liberating flammable gases in contact with water.
 - Strongly oxidizing substances of storage class 5.1A.
 - Ammonium nitrate and preparations containing ammonium nitrate.
 - Organic peroxides and self reactive substances.
 - Non combustible acutely toxic substances of storage class 6.1B.
- Under certain conditions the collocated storage with the following sub-stances is permitted.
 - Oxidizing substances of storage class 5.1B.
 - Noncombustible toxic or chronically acting substances of storage class 6.1D.
 - Combustible solids of storage class 11.
- The substance should not be stored with substances with which hazardous chemical reactions are possible.
- Observe the national and local regulations concerning handling and storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Preventive industrial and medical examinations must be carried out according to the application area.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

8.1.1 Occupational exposure limits

Substance	EINECS ⁷ No	CAS ⁸ No.	Content %	Limit Value				Upper Limit	Source
				TWA ⁹ (8 Hr.)		STEL ¹⁰ (15 Min.)			
				mg/m ³ ₁₁	ppm ¹²	mg/m ³	ppm		
Acetic acid	200-679-5	68-12-2	> 99,5	25	10	-	-	-	OSHA ACGIH (TLW) NIOSH
				25	10	37	15		
				25	10	37	15		

8.2 Exposure controls

- Adequate ventilation should be used during processing

8.2.1 Appropriate engineering controls:

- Provide local exhaust ventilation.
- In the immediate working surroundings there must be: Emergency shower installed.
- Make available sufficient washing facilities.
- Provide eye shower and label its location conspicuously.
- See Section 7

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

8.2.2 Personal protection equipment

8.2.2.1 Eye / Face protection:

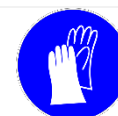
- Sufficient eye protection must be worn.
- Wear chemical safety goggles.
- If the face is at risk a protective shield must also be worn.
- If vapours or aerosols that may injure the eyes arise, then safety of the eyes can best be guaranteed by wearing a full mask.
- Chemical goggles approved under government standards such as NIOSH (US) or EN 166(EU)
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation
- Lens should be removed in a clean environment only after workers have washed hands thoroughly.



8.2.2.2 Skin protection

Hand protection

- The use of resistant protective gloves is recommended.
- Skin protection cremes do not protect as effectively against the substance as protective gloves. Therefore suitable protective gloves should be preferred as far as possible.----
- Use protective gloves. The glove material must be sufficiently impermeable and resistant to the substance. Check the tightness before wear.
- Gloves should be well cleaned before being removed, then stored in a well ventilated location. Pay attention to skin care.
- Skin protection cremes do not protect sufficiently against the substance.
- The following materials are suitable for protective gloves (Permeation time \geq 8 hours):
Butyl rubber - Butyl (0,5 mm)
- Protective gloves of the following materials should not be worn longer than 1 hour continually (Permeation time \geq 1 hour):
Polyvinyl chloride - PVC (0,5 mm)
- Following materials are unsuitable for protective gloves because of degradation, severe swelling or low permeation time:
Natural rubber/Natural latex - NR
Polychloroprene - CR
Nitrile rubber/Nitrile latex - NBR
Fluoro carbon rubber - FKM
- The times listed are suggested by measurements taken at 22 °C and constant contact. Temperatures raised by warmed substances, body heat, etc. and a weakening of the effective layer thickness caused by expansion can lead to a significantly shorter breakthrough time. In case of doubt contact the gloves' manufacturer. A 1.5-times



Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

increase / decrease in the layer thickness doubles / halves the breakthrough time. This data only applies to the pure substance. Transferred to mixtures of substances, these figures should only be taken as an aid to orientation.

Body protection

- Depending on the risk, wear a tight, long apron and boots or suitable chemical protection clothing.
- Wear flameproof protective clothing.
- The protection clothing should be solvent resistant.

Other protection

- Handle in accordance with good industrial hygiene and safety practice.

8.2.2.3 Respiratory protection

- Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- In an emergency (e.g.: unintentional release of the substance, exceeding the occupational exposure limit value) respiratory protection must be worn. Consider the maximum period for wear.
- Respiratory protection: Gas filter E, colour code yellow.
- Use insulating device for concentrations above the usage limits for filter devices, for oxygen concentrations below 17% volume, or in circumstances which are unclear.



8.2.3 Environmental exposure controls

- Legislation for the protection of the environment must be met in full.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Form/Physical state	Liquid
Color	Colourless
Odor	Pungent
	Value
pH (60,5 g/l) @ (20°C)	2,4
Melting/Freezing point/range (°C)	16,2
Boiling point/range (°C)1,013 hPa	117-118
Flash Point (°C)closed cup	40
Auto Ignition temperature (°C)	485
Relative Density g/cm ³ @25 °C	1,049
Upper explosion limit % (V)	19,9
Lower explosion limit % (V)	4
Solubility in water g/l @ 20°C	Completely miscible
Partition coefficient n-Octanol/Water (log Po/w)	-0,17
Vapour Pressure	hPa
	15,2
	73,3
	°C
	20
	25

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

Other Information	
Surface Tension mN/m @ 10°C	28,8
<i>Note: The above features were determined according to prescribed methods at the Classification, Packaging and Labeling of Hazardous Substances Regulation Section A-3 or a method comparable to the other.</i>	

10. STABILITY AND REACTIVITY

10.1 Reactivity

- Chlorinated hydrocarbons can react vehemently when heated, especially in presence of iron traces.

10.2 Chemical stability

- Stable under recommended storage and handling conditions. (See section 7.)

10.3 Possibility of hazardous reactions

- The substance can react dangerously with:
- Alcohols, strong oxidizing agents, strong lyes, alkali hydroxide, strong acids, nitric acid
- 2-aminoethanol; ammonium nitrate (heat); bromine pentafluoride; chlorosulphuric acid; dichromate-sulfuric acid; diaminoethane; glacial acetic acid; acetic anhydride; ethylene glycol; potassium-tert. butoxide; oleum

10.4 Conditions to avoid:

- Excess heat, flames and sparks.

10.5 Incompatible materials:

- Alcohols, strong oxidizing agents, strong lyes, alkali hydroxide, strong acids, nitric acid
- 2-aminoethanol; ammonium nitrate (heat); bromine pentafluoride; chlorosulphuric acid; dichromate-sulfuric acid; diaminoethane; glacial acetic acid; acetic anhydride; ethylene glycol; potassium-tert. butoxide; oleum

10.6 Hazardous decomposition products:

- Carbon oxides.

10.7 Hazardous polymerization:

- The substance polymerize in contact with:
Acetic aldehyde

11. TOXICOLOGICAL INFORMATION

11.1 General Information

- Routes of exposure:
The main route of occupational exposure for acetic acid (E) is via the respiratory tract.

11.2 Acute toxicity

Oral:

- Type of value: LD50
- Species: rat
- Value: approx. 3310 mg/kg

Dermal:

- Type of value: LD50
- Species: rabbit
- Value: 1112 mg/kg.

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

Inhalation:

- Type of value: LD50
- Species: mouse
- Value: 5620 ppm- 1 hour

11.3 Skin corrosion/irritation and Eye damage/irritation:

Skin:

- Mid skin irritation (rabbiy)

· Eye:

- Corrosive to eyes (Rabbit)

· Sensitization:

- Did not cause sansitization on laboratory animals.

11.4 CMR effects (Carcinogenity) :

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

11.5 CMR effects (Mutagenicity and Toxicity for reproduction) :

No data available

11.6 Other Toxicological Effects:

Allergic Effects	May cause allergic reactions depends on sensitization
Effects on Repeated Doses Chronic Exposures	No data available
Sensitization	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals
Developmental Toxicity (Teratogenicity)	No data available concerning teratogenic effects.
Fertility	No data available

11.7 STOT-single/repeated exposures:

STOT-single exposure	No data available
STOT-repeated exposure	No data available

11.8 Symptoms related to the physical, chemical and toxicological characteristics:

In case of inhalation	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
In case of skin contact	Harmful if absorbed through skin. Causes skin burns.
In case of eye contact	Causes eye burns.
In case of ingestion	May be harmful if swallowed. Causes burns.

11.9 Additional Toxicological Information:

- Toxicological classifications are based on available knowledge and information
- EEC classification: Corrosive.
- The special effects to health are considered by taking into account the information in section 3.
- RTECS: AF1225000

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

- Acute Fish Toxicity (LC50 96 hour): 79-88 mg/l (*Pimephales promelas*)
- Acute Fish Toxicity (LC50 96 hour): 75 mg/l (*Lepomis macrochirus*)
- Acute Crustaceans Toxicity (EC50 48 hour): No data available
- Acute Daphnia Toxicity (EC50 48 hour): 65 (Water flea)
- Acute Algae Toxicity (LC50 96 hour): No data available

12.2 Photo degradation

Aerobic - Exposure time 30 d
Result: 99 % - Readily biodegradable
Remarks: Expected to be biodegradable.

12.3 Effects on Waste Water Treatment Plants

Not determined.

12.4 Mobility

Liquid
Completely miscible
Refer to ecotoxicity.

Water threat class No data available

Clean Water Impact No data available

Known or predicted environmental distribution No data available

12.5 Results of PBT and vPvB assessment

Biotic	
Ready biodegradability:	No data available
Abiotic:	
Hydrolysis as a function of pH:	No data available
Photolysis:	No data available
Atmospheric oxidation:	No data available

· Persistence and degradability:

Decomposition Potential of the products No data available

The half-life of degradation No data available

Potential degradation of product content in the evaluation of wastewater treatment plants No data available

· Bioaccumulation Potential :

Biological environment (biota) accumulation potential No data available

Potential - nutrients pass through No data available

Reference Values - Log Kow , Sw and BCF Log Po/w: -0,17

12.6 Additional information

See the sections 6, 7, 13, 14 and 15.

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

13. DISPOSAL CONSIDERATIONS

13.1 Product / Packaging disposal

- This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.
- If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means.
- Shelf life considerations should also be applied in making decisions of this type.
- Note that properties of a material may change in use, and recycling or reuse may not always be appropriate
- When recycling of the product is not possible, disposal to landfill or incineration in accordance with all applicable government laws and regulations is recommended.
- Disposal according to local authority regulations.
- Contact waste disposal services

13.2 Contaminated packaging

- If there is product residue in the emptied container, follow directions for handling on the container's label.
- Contaminated packaging must be emptied of all residues and can be recycled following appropriate cleaning.

13.3 Disposal Methods





- This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.
- Offer surplus and non-recyclable solutions to a licensed disposal company.
- Dispose of chemicals waste or in accordance with local regulations.
- Follow all applicable local laws, rules and regulations regarding the proper disposal of this material.
- If this product has been altered or contaminated with other hazardous materials, appropriate waste analysis may be necessary to determine proper method for disposal

13.4 European Waste Catalogue

- The final classification has to be done together with the local waste disposal company / authority.

14. TRANSPORT INFORMATION

UN 2789, ACETIC ACID, GLACIAL or ACETIC ACID SOLUTION, more than 80% acid, by mass

	ADR ¹³ /RID ¹⁴	ADNR15	IMDG ¹⁶	ICAO ¹⁷ /IATA ¹⁸
TRANSPORTATION	Road	River	Marine	Airways
PROPER SHIPPING NAME	UN 2789, ACETIC ACID, GLACIAL or ACETIC ACID SOLUTION, more than 80% acid, by mass			
UN/ID No.	2789	2789	2789	2789
SYMBOL				

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

CLASS	8	8	8	8
PACKAGING GROUP	II	II	II	II
LABELLING NO	8+3			
CLASSIFICATION CODE	CF1	CF1	CF1	CF1
HAZARD NO (HIN NO)	83			
EmS			F-E;S-C	
MARINE Pollutant			NO	

Road Transport Notes: Transports in bulk or in tanks: passage forbidden through tunnels of category D and E.
Other transports: passage forbidden through tunnels of category E.

15. REGULATORY INFORMATION

15.1 Safety, Health And Environmental Regulations / Legislation Specific For The Substance

Substance is found on the following regulatory lists;;

- "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)"

15.2 Chemical Safety Assessment

No data available

15.2.1 HAZARD

CLP classification according to Annex VI of CLP (Regulation (EC) No 1272/2008)

- Flammable liquid and vapour.
- Causes severe skin burns and eye damage.

15.2.2 RISK

- Flammable
- Causes severe burns

15.3 INTERNATIONAL REGULATIONS

- This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and ISO 11014:2009. This product is classified according to EU Directive 67/548/EC and GHS/CLP.

16. OTHER INFORMATION

16.1 Other information

- For additional information regarding **AK-KIM KIMYA SAN. VE TIC. ŞTİ.** products please contact the **AK-KIM KIMYA SAN. VE TIC. A.Ş** Vedat Ateşoğlu - vatesoglu@akkim.com.tr
- The above information complies with the 199/45/EC and 1907/2006 Directives and their amendments.
- In all cases of potential poisoning supportive therapy is of the utmost importance.

16.2 Related Person

- Vedat Ateşoğlu - vatesoglu@akkim.com.tr Ak-Kim Kimya San. Ve Tic. A.Ş
- Prepared by : Ali Haydar KETİR - Ak-Kim Kimya San. Ve Tic. A.Ş
ali.ketir@akkim.com.tr
- **Competent Person Accreditation no : TSE GBF-0855 28.07.2011**

16.3 Revision Date, Version and SDS no

- Date : October 11, 2013

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

ACETIC ACID

Version: 1.0
Form No: 193246

Preparation Date : 10/11/2013
Revision Date: 10/11/2013

<ul style="list-style-type: none"> · Version : 1.0 · MSDS No : 193246
<p>16.4 Reason of re-issue</p> <ul style="list-style-type: none"> · Compiling according to Regulation (EC) No 1272/2008
<p>16.5 Relevant R-, H- and EUH-phrases (number and full text):</p> <p>H226 Flammable liquid and vapour.</p> <p>H314 Causes severe skin burns and eye damage.</p>
<p>16.6 Legal disclaimer</p> <ul style="list-style-type: none"> · The purpose of the above information is to describe the products only in terms of health and safety requirements. · The information given should not, therefore, be construed as guaranteeing specific properties or as specification. · Customers should satisfy themselves as to the suitability and completeness of such information for their own particular use. · 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 above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text. · <u>The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. Due to the many factors outside our control when using this product, we cannot accept liability for any injury, accident, loss or damage caused through its use.</u>

¹ SDS: Safety Data Sheet

² CAS: Chemical Abstract Service

³ EINECS: European INventory of Existing Commercial

⁴ CLP: Classification Labelling and Packaging

⁵ GHS: Global Harmonised System

⁶ NIOSH: National Institute of Occupational Safety and Health(Ulusal İş Sağlığı ve Güvenliği Enstitüsü)

⁷ EINECS: Kimyasal maddelerin Avrupa Envanteri

⁸ CAS: Kimyasal maddelerin servis kayıt numarası.

⁹ TWA: 8 saatlik belirlenen referans süre için ölçülen veya hesaplanan zaman ağırlıklı ortalama

¹⁰ STEL: Başka bir süre belirtilmedikçe, 15 dakikalık bir süre için aşılmaması gereken maruziyet üst sınırı değeri.

¹¹ Mg/m³: 20 °C sıcaklıkta ve 101,3 KPa. (760 mm cıva basıncı) basınçtaki 1 m³ havada bulunan maddenin miligram cinsinden miktarı

¹² ppm: 1 m³ havada bulunan maddenin mililitre cinsinden miktarı (ml/m³)

¹³ ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

¹⁴ RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

¹⁵ ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways

¹⁶ IMDG: International Maritime Code for Dangerous Goods

¹⁷ ICAO: International Civil Aviation Organization

¹⁸ IATA: International Air Transport Association