

SAFETY DATA SHEET
Acetic Acid 80% Solution

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Issued: 15/11/2011
Revision No: 1

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

REACH REGISTRATION NUMBER: 01-2119475328-30-xxxx

CAS-NO: 000064-19-7

EU INDEX NO: 607-002-00-6

EC (EINECS) NO: 200-580-7

PRODUCT NO: A009, A012

INTERNAL ID: A007, G006, G007.

SYNONYMS, TRADE NAMES: PYROLIGNEOUS ACID, ETHYLIC ACID, GLACIAL ACETIC ACID, ETHANOIC ACID, METHANE CARBOXYLIC ACID, VINEGAR ACID

APPLICATION: Used in the manufacture of acetates and acetyl compounds. Acidulant and preservative in foods.

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2. HAZARDS IDENTIFICATION

CLASSIFICATION (1999/45) C;R34.

CLASSIFICATION (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Skin Corr. 1B - H314
Environment	Not classified.

LABEL IN ACCORDANCE WITH (EC) NO. 1272/2008



SIGNAL WORD Danger
CONTAINS ACETIC ACID 80%

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HAZARD STATEMENTS

H314: Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS

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

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

SUPPLEMENTARY PRECAUTIONARY STATEMENTS

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P264: Wash ... thoroughly after handling.

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P321: Specific treatment (see ... on this label).

P363: Wash contaminated clothing before reuse.

P405: Store locked up.

P501: Dispose of contents/container to

3. COMPOSITION / INFORMATION ON INGREDIENTS

ACETIC ACID ...%		60-100%
CAS-No.: 64-19-7	EC No.: 200-580-	Registration Number: 01-2119475328-30-xxxx

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 3 - H226	R10
Skin Corr. 1A - H314	C;R35

The Full Text for all R-Phrases and Hazard Statements is displayed in Section 16

EU INDEX NO.	607-002-00-6
EC (EINECS) NO.	200-580-7
GROSS FORMULA	99-100%
CAS-NO.	000064-19-7

COMPOSITION COMMENTS

This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation GHS)

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4. FIRST AID MEASURES

GENERAL INFORMATION

Remove all contaminated clothing. Remove affected person from source of contamination.

NOTES TO THE PHYSICIAN

Rescuers must not expose themselves to contact. Personal protective equipment must be worn. Symptomatic treatment. In case of lung irritation first treatment with dexametason aerosol (spray). In case of choking: gastroscopy inclusive of aspiration and acidosis compensation.

INHALATION

Remove victim immediately from source of exposure. If respiratory problems, artificial respiration/oxygen. Get medical attention.

INGESTION

DO NOT induce vomiting. Get medical attention immediately. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS!

SKIN CONTACT

Promptly flush contaminated skin with water. Promptly remove clothing if soaked through and flush the skin with water. Get medical attention immediately.

EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse...

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Water spray, fog or mist. Foam. Alcohol resistant foam. Carbon dioxide (CO₂).

SPECIAL FIRE FIGHTING PROCEDURES

Use water to keep fire exposed containers cool and disperse vapours. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Use water spray to reduce vapours. Do not get water inside container. If risk of water pollution occurs, notify appropriate authorities.

UNUSUAL FIRE & EXPLOSION HAZARDS

May explode in a fire. May develop highly toxic or corrosive fumes if heated. May travel considerable distance to source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers.

SPECIFIC HAZARDS

Explosive gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrous gases (NO_x).

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PROTECTIVE MEASURES IN FIRE

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Acid resistant personal protective equipment is necessary.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

Use a respirator (See section 8).

ENVIRONMENTAL PRECAUTIONS

Do not allow spillage to enter watercourses, drains or sewers. Fire Brigade and Local Authority must be informed if this happens as a potential explosive hazard may be created. Stop leak if possible without risk. Cover with dry sand or earth, do NOT use sawdust or other combustible materials. Shovel up residue and collect for authorised disposal.

SPILL CLEAN UP METHODS

Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Absorb small quantities with paper towels and evaporate in safe place (fume hood). Allow sufficient time for vapours to completely clear the hood ducts, then burn the paper in a location away from combustible materials. Large spills, dilute, then neutralise with caustic solution. Neutralise with alkaline material (Lime, crushed limestone, sodium bicarbonate or soda ash). Flush area with water. Clean-up personnel should use respiratory and/or liquid contact protection. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

7. HANDLING AND STORAGE**USAGE PRECAUTIONS**

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Avoid acids, moisture, and combustible materials. Wear full protective clothing for prolonged exposure and/or high concentrations. Do not use contact lenses. Do not handle broken packages without protective equipment.

STORAGE PRECAUTIONS

Flammable/combustible - Keep away from oxidisers, heat and flames. Isolate from other materials. May attack some plastics, rubber and coatings. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep above the chemical's freezing point. Store away from: Alkalis. Oxidising material and caustic products

STORAGE CLASS

Flammable liquid storage. Corrosive storage.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENT COMMENTS

EU TWA 25 mg/m³ 10PPM

ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

Chemical respirator with organic vapour cartridge and full face piece. Gas mask with organic vapour canister (chin-style or front- or back-mounted). Supplied-air respirator with full face piece, helmet or hood. Self-contained breathing apparatus with full face piece.

HAND PROTECTION

Use protective gloves made of: Neoprene. Polyethylene. Butyl rubber. The penetration time of the recommended gloves depend not only on the material. Also other factors may have influence on the penetration time, as the thickness of them or the specific use or conditions (temperature). In any case certificate materials (for example following EN 374) should be selected. Please ask your supplier if the gloves are suitable for the extended use.

Breakthrough time 480 min

EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact. Contact lenses should not be worn when working with this chemical! EN 166 recommended

OTHER PROTECTION

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station and safety shower. Impervious clothing, gloves and minimum 8 inches face shield. Wear appropriate clothing to prevent any possibility of skin contact with solutions containing 10% or more of this chemical.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes wet or contaminated. Contaminated clothing to be placed in closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous properties. Promptly remove non-impervious clothing contaminated with solid or liquid chemical or stronger than 10% solutions.

SKIN PROTECTION

Impervious clothing

ENVIRONMENTAL EXPOSURE CONTROLS

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid
COLOUR	Colourless.
ODOUR	Acetic acid.
PHYSICAL DATA COMMENTS	Information given concerns the active ingredient.
VOLATILITY DESCRIPTION	Volatile
SOLUBILITY	Miscible with water
MOL. WEIGHT	60.05
BOILING POINT (°C)	118
MELTING POINT (°C)	17
RELATIVE DENSITY	~ 1.07 @ 20 °c
VAPOUR DENSITY (air=1)	2.07
VAPOUR PRESSURE	~ 1.54 kPa @ 20 °c
EVAPORATION RATE	0.97 BuAc=1
pH-VALUE, CONC. SOLUTION	~4.5
VISCOSITY	~ 1.056 cps @ 25 °c
CRITICAL TEMPERATURE (°C)	~ 321
ODOUR THRESHOLD, LOWER	24.3
FLASH POINT (°C)	~ 61 CC (Closed cup).
AUTO IGNITION	~ 425 (as acetic acid)
TEMPERATURE (°C)	
FLAMMABILITY LIMIT - LOWER(%)	5.4 vol. as acetic acid
FLAMMABILITY LIMIT - UPPER(%)	16 vol. as acetic acid
PARTITION COEFFICIENT (N-Octanol/Water)	-0.17 (measured)

10. STABILITY AND REACTIVITY

STABILITY	Stable under normal temperature conditions and recommended use.
CONDITIONS TO AVOID	Avoid heat, flames and other sources of ignition. Avoid static discharges.
HAZARDOUS POLYMERISATION	Will not polymerise.
MATERIALS TO AVOID	Bases, alkalis (inorganic). Strong oxidising substances. Strong reducing agents. Massive, solid metal. Powdered metal. Alkali metals. Alkali earth metals. Amines. Azo, diazo, hydrazine comps. Dithiocarbamates. Inorganic cyanides. Cyanohydrines. Inorganic nitrides. Inorganic halides.
HAZARDOUS DECOMPOSITION PRODUCTS	Toxic gases/vapours/fumes of: Carbon monoxide (CO).

11. TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50	3310 mg/kg (oral rat)
TOXIC CONC. - LC 50	40 mg/l/4h (inh-rat)
INHALATION	Irritating to respiratory system.
INGESTION	Causes severe burns.
SKIN CONTACT	Causes burns. Corrosive to rabbit skin OECD 404
EYE CONTACT	Corrosive to rabbit eye OECD 405

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HEALTH WARNINGS

Exposure; This chemical has adequate warning properties. Gas or vapour is harmful on prolonged exposure or in high concentrations. This chemical may cause skin/eye irritation and burns (corrosive). Irritant of eyes and mucous membranes. Repeated exposure may cause chronic eye irritation. Contact with concentrated chemical may very rapidly cause severe eye damage, possibly loss of sight. Serious damage to the lining of nose, throat and lungs. Chronic inflammation of nose, throat and bronchial tubes. Acute eczematous dermatitis, contact type erythema, oedema, papules, vesicles, bullae, crusts, desquamation. Swallowing concentrated chemical may cause severe internal injury. Erosion of exposed front teeth. Keratosis (thickening of the horny layer of the skin).

ROUTE OF ENTRY

Inhalation. Ingestion. Skin and/or eye contact.

TARGET ORGANS

Eyes Respiratory system, lungs Skin Teeth Mucous membranes

MEDICAL SYMPTOMS

Extreme irritation of eyes and mucous membranes, including burning and tearing. Irritation, burning, lachrymation, blurred vision after liquid splash. Irritation of nose due to vapour or dust contact. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. Delayed, often serious breathing problems. May cause suffocation. Severe skin irritation. Nausea, vomiting. Diarrhoea. Dizziness.

MEDICAL CONSIDERATIONS

Chronic respiratory and obstructive airway diseases. Skin disorders and allergies. Pre-existing eye problems.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Highly toxic to aquatic life.

MOBILITY

Completely miscible with water.

BIOACCUMULATION

No evidence of bioaccumulation. There is no evidence of accumulation in animals.

DEGRADABILITY

Readily biodegradable.

WATER HAZARD CLASSIFICATION WGK 1 WGK (German) one (1): mild water pollutant.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Follow all applicable community, national or regional regulations regarding waste management methods. Contaminated packaging: Can be used after re conditioning

WASTE CLASS

Contaminated adsorbent must be removed in sealed plastic lined drums and disposed of via an authorised waste disposal contractor.

14. TRANSPORT INFORMATION



PROPER SHIPPING NAME

ACETIC ACID SOLUTION

SEA TRANSPORT NOTES

UN 2790 refers to solutions with more than 10% but not more than 80% (+- 0.5%) acetic acid by weight.

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ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT	No.
UN NO. ROAD	2790
ADR CLASS NO.	8
ADR CLASS Class 8:	Corrosive substances.
ADR PACK GROUP	II
TUNNEL RESTRICTION CODE	(E)
HAZARD NO. (ADR)	80 Corrosive or slightly corrosive substance.
HAZARD No. (ADR)	80
ADR LABEL NO.	8
HAZCHEM CODE	•2R
UN NO. SEA	2790
IMDG CLASS	8
IMDG PACK GR.	II
EMS	F-A, S-B
UN NO. AIR	2790
AIR CLASS	8
AIR PACK GR.	II

15. REGULATORY INFORMATION

Hazard symbols: No significant hazard.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

RISK PHRASES IN FULL

R35 Causes severe burns.

R10 Flammable.

HAZARD STATEMENTS IN FULL

H314 Causes severe skin burns and eye damage.

H226 Flammable liquid and vapour.

Legal disclaimer:

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

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