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

Product identifier:

Product Name: ACETIC ACID 79-≤80%

Index No.: 607-002-00-6

EC Number: 200-580-7

CAS No.: 64-19-7

Synonyms: ACETIC ACID 79% TECH SOL BLK, ACETIC ACID 80% PURE, ACETIC ACID 80% RECOVERED BLK, ACETIC ACID 80% SOL, ACETIC ACID 80% SOL BE, ACETIC ACID 80% SOL BE BLK, ACETIC ACID 80% SOL BLK, ACETIC ACID 80% SOL ITA BLK, ACETIC ACID 80% TECH, ACETIC ACID PURE 80%, ACETIC ACID PURE 80% CBB, ACETIC ACID PURE 80% SOL, ACETIC ACID PURE 80% SOL BLK, ACETIC ACID PURE 80% SOL CS, ACETIC ACID PURE 80% SOL CS BLK

Pure substance/mixture: Substance

Relevant identified uses of the substance or mixture and uses advised against:

Recommended use: Chemical
pH control
Chemical intermediate
For further information, see attached Exposure Scenario

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)

Label elements:

Signal word: Danger

[cont…]

Hazard statements: H314 Causes severe skin burns and eye damage.

Precautionary statements: P260 Do not breathe vapour/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 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/ doctor.
P501 - Dispose of contents as hazardous waste in accordance with local/ regional/ national /international regulations.

Other hazards: No information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

Chemical name	Weight-%	EC No. (EU Index No.)	UK REACH reg No.	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
ACETIC ACID.. % 64-19-7	79 - <=80%	200-580-7 (607-002-00-6)	-	Flam. Liq. 3 (H226) Skin Corr. 1A (H314)	Eye Irrit. 2: 10%<=C<25% Skin Corr. 1A: C>=90% Skin Corr. 1B: 25%<=C<90% Skin Irrit. 2: 10%<=C<25%	-	-

Full text of H- and EUH-phrases: See section 16.

This product does not contain candidate substances of very high concern at a concentration >= 0.1% (UK REACH Article 59).

4. FIRST AID MEASURES

Description of first aid measures:

General information: Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Inhalation: Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.

[cont…]

Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Self- protection of first aiders: Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed:

Symptoms: Causes severe skin burns and eye damage.

Eyes: Causes serious eye damage.

Dermal: Causes severe burns.

Indication of any immediate medical attention and special treatment needed:

Note to doctor: Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or oesophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Dry chemical, CO2, alcohol-resistant foam or water spray.

Large Fire: CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media: Do not scatter spilled material with high pressure water streams.

Special hazards arising from the substance or mixture:

Specific hazards: The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products: Carbon dioxide (CO2). Carbon monoxide.

Advice for firefighters:

Special protective equipment and precautions for firefighters:

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Collect contaminated fire extinguishing water separately. Do not allow it to enter drains or surface water.

[cont…]

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information: Refer to protective measures listed in Sections 7 and 8.

For emergency responders: Use personal protection recommended in Section 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

Methods and material for containment and cleaning up:

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Following product recovery, flush area with water.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections: See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling:

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation.

General hygiene considerations: Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Conditions for safe storage, including any incompatibilities:

Storage conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from other materials. Strong acids. Strong bases. Strong oxidising agents. Strong reducing agents. Alcohols. Glycols. Amines.

Specific end use(s):

Specific use(s): See section 1 for more information.

Risk Management Methods (RMM): The information required is contained in this Safety Data Sheet.

[cont…]

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Exposure limits:

Chemical name	United Kingdom
ACETIC ACID… % 64-19-7	TWA: 10 ppm TWA: 25 mg/m3 STEL: 20 ppm STEL: 50 mg/m3

Biological occupational exposure limits: This product, as supplied, does not contain any hazardous materials with biological limits established by the region-specific regulatory bodies.

Derived No Effect Level (DNEL) – Workers:

Chemical name	Oral	Dermal	Inhalation
ACETIC ACID… % 64-19-7			25 mg/m3 [5] [6] 25 mg/m3 [5] [7]

[5] Local health effects.

[6] Long term.

[7] Short term.

Derived No Effect Level (DNEL) - General Public:

Chemical name	Oral	Dermal	Inhalation
ACETIC ACID… % 64-19-7			25 mg/m3 [5] [6] 25 mg/m3 [5] [7]

[5] Local health effects.

[6] Long term.

[7] Short term.

Predicted No Effect Concentration (PNEC):

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
ACETIC ACID… % 64-19-7	3.058 mg/L	30.58 mg/L	0.3058 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
ACETIC ACID… % 64-19-7	11.36 mg/kg sediment dw	1.136 mg/kg sediment dw	85 mg/L	0.47 mg/kg soil dw	85 mg/l

[cont…]

Exposure controls:

Engineering controls: Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment:

Eye/face protection: Use eye protection according to EN 166. Tight sealing safety goggles. Face protection shield.

Hand protection: Wear protective butyl rubber gloves. Gloves must conform to standard EN 374. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Gloves			
Duration of contact	**PPE-Glove material**	**Glove thickness**	**Break through time**
Long term (repeated)	Butyl rubber	0.7 mm	480 minutes

Skin and body protection: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Respiratory protection: None under normal use conditions. In case of inadequate ventilation wear respiratory protection.

Recommended filter type: Acid gases filter conforming to EN 14387.

General hygiene considerations: Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Environmental exposure controls: Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Liquid

Appearance: Liquid

Colour: Colourless

Odour: Characteristic

Odour threshold: No information available

Property	Values	Remarks · Method
Melting point / freezing point	< -5°C	No information available
Initial boiling point and boiling range	> 100°C	@ 760 mm Hg
Flammability		No information available
Flammability Limit in Air		No information available
Upper flammability or explosive limits	17.0%	
Lower flammability or explosive limits	5.4%	
Flash point	>61°C	No information available
Autoignition temperature	427°C	No information available
Decomposition temperature		No information available
pH		No information available
pH (as aqueous solution)	2.5	Solution (2 %)

[cont…]

Property	Values	Remarks · Method
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Water solubility	Soluble in water	No information available
Solubility(ies)		No information available
Partition coefficient	log Pow: -0.31	No information available
Vapour pressure	15.7 mbar	No information available
Relative density	1.01 - 1.07	@ 20°C
Bulk density		No information available
Liquid Density		No information available
Relative vapour density		No information available
Particle characteristics		No information available
Particle Size		No information available
Particle Size Distribution		No information available
Explosive properties		No information available
Oxidising properties		No information available

10. STABILITY AND REACTIVITY

Reactivity: No reactive hazards known/expected.

Chemical stability:

Stability: Stable under normal conditions.

Explosion data:

Sensitivity to mechanical impact: None.

Sensitivity to static discharge: None.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid: Avoid excessive heat for prolonged periods of time.

Incompatible materials: Strong acids. Strong bases. Strong oxidising agents. Strong reducing agents. Alcohols. Glycols. Amines.

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Information on likely routes of exposure:

Product Information:

Inhalation: Specific test data for the substance or mixture is not available. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. [cont…]

Eye contact: Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.

Skin contact: Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.

Ingestion: Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhoea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking.

Symptoms related to the physical, chemical and toxicological characteristics:

Symptoms: Redness. Burning. May cause blindness. Coughing and/ or wheezing.

Acute toxicity:

Numerical measures of toxicity: Based on available data, the classification criteria are not met.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ACETIC ACID ...%	= 3310 mg/kg (Rat)	-	= 11.4 mg/l (Rat) 4h

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Skin corrosion/irritation: Classification based on data available for ingredients. Causes severe skin burns and eye damage.

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD 404	Rabbit	Dermal			Corrosive

Serious eye damage/eye irritation: Classification based on data available for ingredients. Causes serious eye damage. Causes burns.

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD 405	Rabbit	Eye			Corrosive

Respiratory or skin sensitisation: Based on available data the classification criteria are not met.

Germ cell mutagenicity: Based on available data the classification criteria are not met.

Carcinogenicity: Based on available data the classification criteria are not met.

Reproductive toxicity: Based on available data the classification criteria are not met.

STOT - single exposure: Based on available data the classification criteria are not met.

STOT - repeated exposure: Based on available data the classification criteria are not met.

Aspiration hazard: Based on available data the classification criteria are not met.

Other adverse effects: No information available.

12. ECOLOGICAL INFORMATION

Toxicity:

Ecotoxicity: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Substantial amounts of the product may lead to a local change in acidity in small water systems which may have adverse effects on aquatic organisms.

[cont…]

ACETIC ACID ...% (64-19-7)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
Acute toxicity	Oncorhynchus mykiss (rainbow trout)	LC50	>300.82 mg/L	96 hours	Harmless to aquatic organisms up to the tested concentration
Acute toxicity	Daphnia magna	EC50	>300.82 mg/L	48 hours	Harmless to aquatic organisms up to the tested concentration
Acute toxicity	Skeletonema costatum	EC50	>300.82 mg/L	72 hours	Harmless to aquatic organisms up to the tested concentration
OECD Test No. 204: Fish, Prolonged Toxicity Test: 14-Day Study	Oncorhynchus mykiss (rainbow trout)	LC50	52 mg/L	21 days	Harmless to aquatic organisms up to the tested concentration
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	NOEC	31.4 mg/L	21 days	Harmless to aquatic organisms up to the tested concentration

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
ACETIC ACID ...%	-	LC50: =79mg/L (96h, Pimephales promelas) LC50: =75mg/L (96h, Lepomis macrochirus)		EC50: =65mg/L (48h, Daphnia magna)

Persistence and degradability: Readily biodegradable.

Bioaccumulative potential:

Bioaccumulation: Not likely to bioaccumulate.

Bioconcentration factor (BCF): 3.16

Chemical name	Partition coefficient
ACETIC ACID… %	-0.17

Mobility in soil: Soluble in water.

Results of PBT and vPvB assessment:

PBT and vPvB assessment: The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
ACETIC ACID… %	The substance is not PBT/vPvB

Other adverse effects: No information available.

[cont…]

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Waste from residues/unused products: Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Contaminated packaging: Empty remaining contents. Do not reuse empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

IATA:

14.1 UN number or ID number	**UN2790**
14.2 UN proper shipping name	**ACETIC ACID SOLUTION**
14.3 Transport hazard class(es)	**8**
14.4 Packing group	**II**
14.5 Environmental hazards	**Not applicable**
14.6 Special precautions for user	
Special Provisions	None
ERG Code	8L

IMDG:

14.1 UN number or ID number	UN2790
UN proper shipping name	ACETIC ACID SOLUTION
14.3 Transport hazard class(es)	8
14.4 Packing group	II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
EmS-No	F-A, S-B

14.7 Maritime transport in bulk according to IMO instruments No information available

RID:

14.1 UN number or ID number	UN2790
14.2 UN proper shipping name	ACETIC ACID SOLUTION
14.3 Transport hazard class(es)	8
14.4 Packing group	II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
Classification code	C3

[cont…]

ADR:

14.1 UN number or ID number	UN2790
14.2 UN proper shipping name	ACETIC ACID SOLUTION
14.3 Transport hazard class(es)	8
14.4 Packing group	II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
Classification code	C3
Tunnel restriction code	(E)

15. REGULATORY INFORMATION

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

National regulations:

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Persistent Organic Pollutants: Not applicable.

Export Notification requirements: Not applicable.

Named dangerous substances per COMAH Regulations 2015 (as amended): Not applicable.

The Ozone-Depleting Substances Regulations 2015: Not applicable.

International Inventories:

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECI	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.

Legend:

TSCA	United States Toxic Substances Control Act Section 8(b) Inventory.
DSL/NDSL	Canadian Domestic Substances List/Non-Domestic Substances List.
EINECS/ELINCS	European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances.
ENCS	Japan Existing and New Chemical Substances.
IECSC	China Inventory of Existing Chemical Substances.
KECL	Korean Existing and Evaluated Chemical Substances.
PICCS	Philippines Inventory of Chemicals and Chemical Substances.
AIIC	Australian Inventory of Industrial Chemicals.
NZIoC	New Zealand Inventory of Chemicals.

[cont…]

Chemical safety assessment:

Chemical Safety Report: A Chemical Safety Assessment has been carried out for this substance.

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

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC:	Substances of Very High Concern for Authorisation
PBT:	Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB:	Very Persistent and very Bioaccumulative (vPvB) Substances

Legend Section 8: Exposure controls/personal protection:

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value
*	Skin designation
+	Sensitisers

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.