Revision nr. 2 **EXAXOL CHEMICAL CORPORATION** Dated 4/18/2023 Printed on 4/18/2023 A00137 - Acetic acid 10% v/v Page n. 1/12 Replaced revision:1 (Dated: 4/27/2015) Safety Data Sheet According to U.S.A. Federal Hazcom 2012 1. Identification 1.1. Product identifier A00137 Code: Acetic acid 10% v/v Product name 1.2. Relevant identified uses of the substance or mixture and uses advised against Intended use For Laboratory Use Only. 1.3. Details of the supplier of the safety data sheet **EXAXOL CHEMICAL CORPORATION** Name Full address 14325 60 TH ST N District and Country 33760 CLEARWATER - FLORIDA US Tel. 1-727-524-7732 Fax 1-727-532-8221 e-mail address info@exaxol.com 1.4. Emergency telephone number 1-800-255-3924 For urgent inquiries refer to ChemTel Inc.

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Hazard pictograms: Skin corrosion, category 1 Serious eye damage, category 1

Causes severe skin burns and eye damage. Causes serious eye damage.



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Signal words:	Danger	
Hazard statements:		
H314	Causes severe skin burns and eye damage.	
Precautionary statements:		
Prevention: P260 P264 P280 Response: P301+P330+P331 P303+P361+P353 P304+P340 P305+P351+P338 P310 P321 P363 Storage: P405 Disposal: P501 2.2. Other hazards	Do not breathe dust / fume / gas / mist / vapours / spray. Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection / face protection. IF SWALLOWED: rinse mouth. Do not induce vomiting. IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with wat IF INHALED: remove person to fresh air and keep comfortable for breathing. IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if p rinsing. Immediately call a POISON CENTER / doctor / Specific treatment (see on this label). Wash contaminated clothing before reuse. Store locked up. Dispose of contents / container to	
Information not available		

3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification:
WATER		
CAS 7732-18-5	$90 \le x < 92$	
EC 231-791-2		
INDEX -		
ACETIC ACID		
CAS 64-19-7	10 ≤ x < 11	Flammable liquid, category 3 H226, Skin corrosion, category 1A H314, Serious eye damage, category 1 H318
EC 200-580-7		
INDEX 607-002-00-6		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

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EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

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Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

ACETIC ACID Threshold Limit Value						
Туре	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	25	10	37	15	
OEL	EU	25	10	50	20	
OSHA	USA	25	10			
CAL/OSHA	USA	25	10	37 (C)	40 (C)	
NIOSH	USA	25	10	37	15	

Legend:

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(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold

values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

°C

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Melting point / freezing point No Initial boiling point No Boiling range No Flash point 23 Evaporation Rate No Flammability of solids and gases No Lower inflammability limit No Upper inflammability limit No Upper explosive limit No Vapour pressure No Vapour density No Relative density 1.0 Solubility No	ot available
Solubility No Partition coefficient: n-octanol/water No	•••

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Decomposition temperature Viscosity Explosive properties Oxidising properties Not available Not available Not available Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ACETIC ACID

Risk of explosion on contact with: chromium (VI) oxide,potassium permanganate,sodium peroxide,perchloric acid,phosphorus chloride,hydrogen peroxide.May react dangerously with: alcohols,bromine pentafluoride,chlorosulphuric acid,dichromate-sulphuric acid,ethane diamine,ethylene glycol,potassiun hydroxide,strong bases,sodium hydroxide,strong oxidising agents,nitric acid,ammonium nitrate,potassium tert-butoxide,oleum.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ACETIC ACID

Avoid exposure to: heat, flames and sparks.

10.5. Incompatible materials

ACETIC ACID

Incompatible with: oxidising agents,carbonates,phosphates,hydroxides,metals,peroxides,permanganates,amines,alcohols,nitric acid.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ACETIC ACID

LD50 (Oral) 3310 mg/kg Rat

LD50 (Dermal) 1060 mg/kg Rabbit

LC50 (Inhalation) 11,4 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

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Does not meet the classification criteria for this hazard class

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, and OSHA.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

12.1. Toxicity

Information not available

12.2. Persistence and degradability

ACETIC ACID	
Solubility in water	> 10000 mg/l
Rapidly degradable 12.3. Bioaccumulative potential	
ACETIC ACID	
Partition coefficient: n-octanol/water	-0.17
12.4. Mobility in soil	
ACETIC ACID	
Partition coefficient: soil/water	1.153
12.5. Results of PBT and vPvB assessment	

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

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Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. CONTAMINATED PACKAGING Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

UN 2790, Acetic acid, 8, PG III

15. Regulatory information

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

U.S. Federal Regulations

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

No component(s) listed.

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

<u>Clean Water Act –</u> Priority Pollutants:

No component(s) listed.

<u>Clean Water Act –</u> <u>Toxic Pollutants:</u>

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

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No component(s) listed.		
EPA List of Lists:		
313 Category Code:		
No component(s) listed.		
EPCRA 302 EHS TPQ:		
No component(s) listed.		
EPCRA 304 EHS RQ:		
No component(s) listed.		
CERCLA RQ:		
64-19-7	ACETIC ACID	
EPCRA 313 TRI:		
No component(s) listed.		
RCRA Code:		
No component(s) listed.		
CAA 112 (r) RMP TQ:		
No component(s) listed.		
State Regulations		
Massachussetts:		
64-19-7	ACETIC ACID	
<u>Minnesota:</u>		
64-19-7	ACETIC ACID	
New Jersey:		
64-19-7	ACETIC ACID	
New York:		
64-19-7	ACETIC ACID	
Pennsylvania:		
64-19-7	ACETIC ACID	
<u>California:</u>		

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64-19-7

ACETIC ACID

Proposition 65:

International Regulations

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Candadian WHMIS

Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

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TSCA: Toxic Substances Control Act TWA STEL: Short-term exposure limit TWA: Time-weighted average exposure limit VOC: Volatile organic Compounds WHMIS: Workplace Hazardous Materials Information System. GENERAL BIBLIOGRAPHY: GHS rev. 3 The Merck Index. 10th Edition Handling Chemical Safety Niosh - Registry of Toxic Effects of Chemical Substances INRS - Fiche Toxicologique (toxicological sheet) Patty - Industrial Hygiene and Toxicology N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition ECHA website Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy 6 NYCRR part 597 Cal/OSHA website California Safe Drinking Water and Toxic Enforcement Act EPA website Hazard Comunication Standard (HCS 2012) IARC website List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act Massachussetts 105 CMR Department of public health 670.000: "Right to Know" Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know". New Jersey Worker and Community Right to know Act N.J.S.A. NTP. 2011. Report on Carcinogens, 12th Edition. OSHA website Pennsylvania, Hazardous Substance List, Chapter 323 Note for users: The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products. Changes to previous review: The following sections were modified:

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