SAFETY DATA SHEET

Acetic Acid 50%

Section 1. Chemical Product and Company Information

Product Name	:	Acetic Acid 50%
Other means of identification	:	CAS 64-19-7
Recommended Use	:	
Restrictions on Use	:	Reserved for industrial and professional use.
Supplier Information	:	AgroChem Inc. 26 Freedom Way Saratoga Springs, NY 12866 (518) 226-4850
Date of issue	:	10/12/2022

EMERGENCY HEALTH INFORMATION :
Outside United States and Canada CALL:

Section 2. Hazards Identification

GHS Classification	**Category**
Physical Hazards: Flammable liquids	4
Heal Hazards :	
Skin corrosion :	1b
Serious eye damage :	1

GHS Label Element

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H226: Combustible liquid
Harmful if swallowed, in contact with skin or if inhaled.
Causes severe skin burns and eye damage.

Precautionary Statements :

Prevention:

P243: Take precautionary measures against static discharge.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection .

Response:

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P363: Wash contaminated clothing before reuse.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310: Immediately call a POISON CENTER/doctor/…
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:

Disposal:

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards : None Known

Section 3. Composition / Information on Ingredients

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration (%)
Acetic Acid	64-19-7	50
Water	7732-18-5	50

Section 4. First Aid Measures

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention

immediately.

If swallowed	:	Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	:	Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Notes to physician	:	May irritate and cause redness and pain.

Section 5. Fire-Fighting Measures

General fire hazards:	Combustible liquid and vapor.
Extinguishing media	
Suitable extinguishing media:	Water spray. Dry chemical. Carbon Dioxide. Alcohol foam.
Unsuitable extinguishing media:	None known.
Special hazards arising from the substance or mixture:	Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations.
Special fire fighting procedures:	Water may be ineffective in fighting the fire. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Wear appropriate personal protective equipment.
Environmental precautions:	Avoid release to the environment.

Methods and material for containment and cleaning up: Eliminate sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spillages: Use water spray to disperse vapors and flush spill area. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Section 7. Handling and Storage

Advice on safe handling: Avoid breathing mists or vapors. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Conditions for safe storage: Keep container tightly closed and in a well-ventilated place.

Section 8. Exposure Controls / Personal Protection

Control Parameters

Occupational Exposure Limits

Country specific exposure limits have not been established or are not applicable unless listed below.

Chemical name	Type	Exposure Limit values	Source
acetic acid	TWA	10 ppm	US. ACGIH Threshold Limit Values (01 2010)
	STEL	15 ppm	US. ACGIH Threshold Limit Values (01 2010)
	PEL	10 ppm 25 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information:	Eye bath. Washing facilities. Safety shower.
Eye/face protection:	Use safety goggles and face shield in case of splash risk. Wear a full-face respirator, if needed.
Skin protection	
Hand protection:	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
Other:	No data available.
Respiratory Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
Hygiene measures:	Observe good industrial hygiene practices.
Environmental Controls:	No data available.

Section 9. Physical and Chemical Properties

Appearance	:	Liquid
Color	:	clear
Odor	:	Pungent
Odor Threshold:		0.48 ppm
pH	:	2.2, 100%
Flash point	:	Not applicable
Odor Threshold	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Evaporation Rate	:	No data available
Flammability (solid, gas)	:	Flammable
Upper explosion limit	:	No data available

Lower explosion limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	1.018
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Molecular weight	:	No data available
VOC	:	No data available

Section 10. Stability and Reactivity

Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None known
Conditions to avoid	Heat, sparks, flames.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon Dioxide. Carbon Monoxide.

Section 11. Toxicological Information

Information on likely routes of exposure	:	Inhalation, Eye contact, Skin contact
Potential Health Effects	:	No data available
Eyes	:	Causes serious eye damage.
Skin	:	Causes severe skin burns.

Ingestion	:	May cause burns of the gastrointestinal tract if swallowed.
Inhalation	:	Severely irritating to respiratory system.
Chronic Exposure	:	No data available
Experience with human exposure	:	No data available
Eye contact	:	No data available
Skin contact	:	No data available
Ingestion	:	No data available
Inhalation	:	No data available
Toxicity	:	No data available
Acute oral toxicity	:	acetic acid Oral LD-50: (Rat): 3,320 mg/kg
Acute inhalation toxicity	:	acetic acid LC50 (Rat, 4 h): > 16000 ppm
Acute dermal toxicity	:	acetic acid Dermal LD-50: (Rabbit): 1,060 mg/kg
Skin corrosion/irritation	:	Acetic acid (Rabbit, 24 h): Severe
Serious eye damage/eye irritation	:	Acetic acid (Rabbit): severe
Respiratory or skin sensitization	:	No data available
Carcinogenicity	:	No data available
Germ cell mutagenicity	:	acetic acid Salmonella typhimurium assay (Ames test) (Bacterial Reverse Mutation Assay): negative Chromosomal aberration (In vitro Mammalian Chromosome Aberration Test): negative acetic acid Chromosomal aberration Inhalation - vapor (Rat): Read-across from a similar material negative
Teratogenicity	:	No data available
STOT-single exposure	:	No data available
STOT-repeated exposure	:	No data available
Aspiration toxicity	:	No data available
Developmental toxicity		acetic acid Rat; NOAEL: 345 mg/kg; Ingestion

Section 12. Ecological Information

Ecotoxicity

Environmental Effects	:	This product has no known ecotoxicological effects.

Product

Toxicity to fish	:	No data available : acetic acid LC-50 (Fathead Minnow, 96 h): 300.82 mg/l
Toxicity to daphnia and other aquatic invertebrates	:	No data available
Toxicity to algae	:	No data available acetic acid EC-50 (daphnid, 48 h): > 300.82 mg/l

Persistence and degradability	:	No data available acetic acid 96 % (20 d) Readily biodegradable
Bioaccumulative potential	:	**Bioconcentration Factor (BCF) Product:** No data available.
Mobility in soil	:	**Known or predicted distribution to environmental compartments** acetic acid Log Koc: 0.062 (QSAR model)
Other adverse effects	:	No data available

Section 13. Disposal Considerations

Disposal methods	:	No data available
Disposal considerations	:	Dispose of waste and residues in accordance with local authority requirements. Mix with compatible chemical which is less flammable and incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.
	:	

Section 14. Transport Information

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

UN number	:	2790
Description of the goods	:	Acid acetic solution
Class	:	8
Packing group	:	II
Environmentally hazardous	:	No

Air transport (IATA)

UN number	:	2790
Description of the goods	:	Acetic acid solution
Class	:	8
Packing group	:	II
Environmentally hazardous	:	No

Section 15. Regulatory Information

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

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/2, E

SARA 311-312 Hazard Classification(s):
immediate (acute) health hazard
fire hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List
NONE

OSHA: hazardous

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

Philippines Inventory (PICCS) : This product is listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

Section 16. Other Information

HMIS III:

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = Not Significant, 1 = Slight
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Issuing date	:	10/12/2022
Version	:	1.0
Prepared by	:	RJD

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance

for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.