

Industrial Vinegar

1. IDENTIFICATION

Product Identifier: Industrial Vinegar
Product Number: 06-6204
Canadian TDG: UN2790
Synonyms: Acetic, Acetic Acid
Chemical Family: Inorganic acid
Recommended Use: Acid cleaner
Restrictions on Use: None

Manufacturer / Supplier:

Genesis Chemicals
602 – 13th St SE
Medicine Hat, AB
T1A 1X3

Prepared by: The Environmental, Health and Safety Department of Genesis Chemicals Ltd

Preparation Date of SDS: January 31, 2017

Telephone number of preparer: 403-528-4220

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2. HAZARDS IDENTIFICATION

GHS Classification

Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A



Signal Word: Warning

Hazard Statement(s):

Causes skin irritation
Causes serious eye irritation

Precautionary Statement(s):

Prevention:

Wear protective gloves, protective clothing, eye protection and face protection.
Wash face, hands and any exposed skin thoroughly after handling.

Response:

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage:

Store in a closed container.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards:

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration %
Acetic acid	64-19-7	3-7

Notes

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First-aid Measures

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air. If symptoms persist, get medical attention. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. In situations where administering oxygen is appropriate, first aiders must be trained in the safe use and handling of oxygen. It is preferable to administer oxygen under a doctor's supervision or advice. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Immediate medical assistance is required.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice/attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion: If conscious, wash out mouth with water. Seek immediate medical attention. Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Administer artificial respiration if breathing has stopped. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately.

Notes to Physician: Aspiration may cause severe lung damage. Evacuate stomach in a way which avoids aspiration. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed. Following exposure the patient should be kept under medical review for at least 48 hours as delayed pneumonitis may occur. DO NOT attempt to neutralize the acid with weak bases

since the reaction will produce heat that may extend the corrosive injury.

Most Important Symptoms and Effects, Acute and Delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

Immediate Medical Attention and Special Treatment

Special Instructions

Not applicable.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media

Not applicable.

Specific Hazards Arising from the Chemical

Combustion products may include carbon dioxide and other toxic vapors.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Approach fire from upwind to avoid hazardous vapours or gases.

Stop leak before attempting to put out the fire. Product could form an explosive mixture and reignite. Keep containers cool to avoid bursting.

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours, flammable or explosive atmosphere.

Dike and recover contaminated water for appropriate disposal.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. If there is potential for skin contact with concentrated cleaner: chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Concentrated product: evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Distant ignition and flashback are possible.

Increase ventilation to area or move leaking container to a well-ventilated and secure area. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Before entry, especially into confined areas, check atmosphere with an appropriate monitor. Monitor area for flammable or explosive atmosphere.

Product (diluted as directed): use the personal protective equipment recommended in Section 8 of this safety data sheet. No other special precautions are necessary.

Environmental Precautions

Concentrated product: do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Concentrated product: small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Do NOT use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal.

Concentrated product: large spills or leaks: cover the spill surface with the appropriate type of foam to reduce the release of vapour. Dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Dike and recover contaminated water for appropriate disposal. Store recovered product in suitable containers that are: tightly-covered.

Product (diluted as directed): no special clean-up methods are necessary.

Other Information

Report spills to local health, safety and environmental authorities, as required.

7. HANDLING AND STORAGE

Precautions for Safe Handling

When handling diluted product: no special handling precautions are necessary.

When handling concentrated product: only use where there is adequate ventilation. Avoid generating vapours or mists. Keep containers tightly closed when not in use or empty. Wear personal protective equipment to avoid direct contact with this chemical.

Do NOT smoke in work areas. Wash hands thoroughly after handling this material. Immediately remove contaminated clothing using the method that minimizes exposure. Keep contaminated clothing under water, in closed containers. Launder clothes before rewearing. Inform laundry personnel of product hazard(s). Do not take contaminated clothing home.

Conditions for Safe Storage

Concentrated product: store in an area that is: temperature-controlled, well-ventilated, out of direct sunlight and away from heat and ignition sources, an approved, fire-resistant area, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in a closed container.

Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Keep amount in storage to a minimum. Avoid bulk storage indoors.

Comply with all applicable health and safety regulations, fire and building codes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Ingredients	ACGIH® TLV®	OSHA PEL	IDLH
Acetic Acid	25 mg/m ³ TLV	25 mg/m ³ TWA	Not available

Consult local authorities for provincial or state exposure limits.

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

When handling large quantities of concentrated product: use a local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

Individual Protection Measures

Eye/Face Protection

Do not get in eyes. Wear chemical safety goggles.

Skin Protection

Prevent all skin contact. Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: Barrier® (PE/PA/PE), Silver Shield/4H® (PE/EVAL/PE), Tychem® Responder, Tychem® TK.

The following materials should NOT be used: neoprene rubber, nitrile rubber, polyvinyl alcohol.

Respiratory Protection

Not normally required if product is used as directed.

Concentrated product: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour Cartridge, or, wear a NIOSH approved self-contained breathing apparatus (SCBA) or supplied air respirator.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

9. CHEMICAL AND PHYSICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Colourless liquid.
Odour	Strong vinegar
Odour Threshold	Not available
pH	2.2
Melting Point/Freezing Point	-3°C / 27°F
Initial Boiling Point/Range	100°C / 212°F
Flash Point	Not available
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid)
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	16.9 mmHg @ 20°C (calculated)
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.01 – 1.03 at 20°C
Solubility	Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available
Other Information	
Physical State:	Liquid

10. STABILITY AND REACTIVITY

Reactivity

Not reactive. Not sensitive to mechanical impact.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Store away from oxidizing agents, strong acids or bases.

Incompatible Materials

Oxidizing agents (e.g. peroxides), strong bases (e.g. sodium hydroxide), strong acids (e.g. hydrochloric acid), and metals.

Hazardous Decomposition Products

During a fire, irritating/toxic gases, such as carbon monoxide, carbon dioxide and other toxic and irritating fumes.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Chemical Name	LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
Acetic Acid	11.4 mg/kg (rat)	3310 mg/kg (rat)	1060 mg/kg (rabbit)

Skin Corrosion/Irritation

May cause mild irritation based on information for closely related chemicals.

Serious Eye Damage/Irritation

Animal tests show serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No additional information

Aspiration Hazard

No additional information

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No additional information

Respiratory and/or Skin Sensitization

No additional information

Carcinogenicity

Chemical Name	IARC	ACGIH	NTP	OSHA
Acetic Acid	Not Listed	Not Listed	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

No data available

Sexual Function and Fertility

No data available

Germ Cell Mutagenicity

Not mutagenic.

Interactive Effects

No information was located.

Additional Information:

Repeated exposure may produce erosion and discoloration of teeth.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity - Freshwater Algae Data
Acetic Acid	LC50 (Lepomis macrochirus) 75 mg/L LC50 (Pimephales promelas) 88 mg/L	Not Available.	Not Available.

Other Information:

Ecotoxicity: The aquatic toxicity and biodegradation of acetic acid are expected to be influenced by its potential to lower pH.

Degradation: Acetic acid will biodegrade readily if released to water (e.g., 5-Day BOD's 63-81%) or soil. The atmospheric photochemical degradation half-life is estimated to be 26.7 days. Bioaccumulation: The log n-octanol water partition coefficient for acetic acid is -0.17. This suggests that acetic acid has low potential to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Recommended disposal methods are for the product, as sold. (Used material may contain other hazardous contaminants). The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.

Burn in an approved incinerator according to federal, provincial/state, and local regulations.

Empty containers retain product residue. Follow label warnings even if container appears to be empty. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: ACETIC ACID

DOT Hazardous Class: 8

DOT UN Number: UN2790

DOT Packing Group: III

DOT Reportable Quantity (lbs): Not Available.

Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: Not Regulated.

Hazard Class: 8

UN Number: UN2790

Packing Group: III

Marine Pollutant: No.

Special Precautions for User

Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

Canada

WHMIS Classification

E CORROSIVE MATERIAL

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

16. OTHER INFORMATION

Additional Information:

This product has been classified in accordance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and the SDS contains all the information required by the Hazardous Products Regulations (HPR).

Prepared by:

The Environmental, Health and Safety Department of Genesis Chemicals Ltd

Date of Latest Revision: January 31, 2017

Key to Abbreviations: IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans. ACGIH® = American Conference of Governmental Industrial Hygienists. A4 = Not classifiable as a human carcinogen. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration. ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. A4 = Not classifiable as a human carcinogen. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. IDLH = Immediately Dangerous to Life and Health.

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*****END OF SDS*****