



SAFETY DATA SHEET

Tool & Equipment cleaner

1. Identification

Product identifier:	Tool & Equipment Cleaner
Other means of identification:	157-1, 157-4, 157-19, 157-205
Recommended use and restrictions on use:	Use solely in solvent cleaning tanks or related equipment or manufacturing process
Initial supplier identifier:	Gotham Industries Inc. 231 Rene A Robert Saint Therese (Quebec) – Canada J7E 4L1 www.gothamindustries.com
Emergency telephone number (hours of operation):	CANUTEC - 1 (613) 996-6666 (24 hours)

2. Hazard Identification

GHS Classification:	FLAMMABLE LIQUID – Category 2 ACUTE TOXICITY – ORAL – Category 3 SKIN CORROSION/IRRITATION – Category 2 SERIOUS EYE DAMAGE / EYE IRRITATION – Category 2A REPRODUCTIVE TOXICITY – Category 1B SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE – Category 2 SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE – Category 3 SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE – Category 3 ASPIRATION HAZARD – Category 1
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GHS information elements

Hazard pictogram(s):



Signal word:	Danger
Hazard statements:	H225 – Highly flammable liquid and vapour H301 – Toxic if swallowed H315 – Causes skin irritation H319 – Causes serious eye irritation H360 – May damage fertility or the unborn child H371 – May cause damage to organs H373 - May cause damage to organs through prolonged or repeated exposure H336 – May cause drowsiness or dizziness

H304 – May be fatal if swallowed and enters airways



Precautionary statements

Prevention:	P201 – Obtain special instructions before use. P202 – Do not handle until all safety precautions have been read and understood. P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 – Keep container tightly closed. P240 – Ground and bond container and receiving equipment. P241 – Use explosion-proof electrical/ventilating/lighting equipment. P242 – Use non-sparking tools. P243 – Take action to prevent static discharges. P260 - Do not breathe fume/mist/vapours/spray. P264 – Wash skin thoroughly after handling. P270 – Do not eat, drink or smoke when using this product. P271 – Use only outdoors or in a well-ventilated area. P280 – Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER/doctor. P303 + P361 + P352 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of water. P304 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 – IF exposed or concerned: Get medical advice/attention. P312 – Call a POISON CENTER/doctor if you feel unwell. P330 – Rinse mouth. P331 – Do NOT induce vomiting. P337 + P313 – If eye irritation persists: Get medical advice/attention. P332 + P313 – If skin irritation occurs: Get medical advice/attention. P362 + P364 – Take off contaminated clothing and wash it before reuse.
Storage:	P403 + P233 – Store in a well-ventilated place. Keep container tightly closed. P405 – Store locked up.
Disposal:	P501 – Dispose of contents and container in accordance with local regulations.
Other known hazards:	None known.

3. Composition/Information on ingredients

Substance or mixture: Mixture

Ingredient	CAS number	Concentration
Methanol	67-56-1	25.0 – 55.0 %
Toluene	108-88-3	45.0 – 75.0 %

Within the current knowledge of the supplier and in the applicable concentration, no additional ingredient present is classified as hazardous to health or the environment and therefore do not identification in this section.

4. First-aid measures

Description of necessary first-aid measures

Inhalation:	Remove the patient to open air, far from the contaminated premises; if respiration stops or is difficult, give an artificial respiration adopting the proper measure for the helper. Seek medical advice.
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Ingestion:	If swallowed do not induce vomiting because there is a danger of lung aspiration. Rinse mouth with water and then drink a glass of water. Never give anything by mouth if victim is unconscious or convulsing. Seek medical advice.
Skin contact:	Remove contaminated clothing. Wash skin with soap and plenty of water. If irritation occurs, seek medical advice.
Eye contact:	Wash eyes thoroughly with plenty of water for 15 to 20 minutes. If irritation occurs, seek medical advice.
Most important symptoms and effects, whether acute or delayed	
Inhalation:	Vapors are moderately irritating to the respiratory passages. Inhalation of high airborne concentrations can irritate mucous membranes, cause headaches, sleepiness, nausea, confusion, loss of consciousness, digestive and visual disturbances and death. The liquid when accidentally aspirated into the lungs can cause severe inflammation of the lung. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents will permanent brain and nervous system damage.
Ingestion:	If swallowed may be fatal. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury. A small amount can cause mental sluggishness, nausea and vomiting leading to severe illness, and may produce adverse effects on vision with possible blindness or death if treatment is not received.
Skin contact:	Causes moderate skin irritation. Repeated or prolonged contact may cause defatting and drying of skin which may result in skin irritation and dermatitis. May be absorbed through the skin in toxic or lethal amounts. Symptoms of exposure may include: Central nervous system depression with headache, stupor, uncoordinated or strange behavior or unconsciousness. Prolonged and or repeated skin contact with methanol soaked material has produced toxic effects including vision effects and death.
Eye contact:	Vapors are moderately irritating to the eyes. High vapor concentration or liquid contact with eyes causes irritation, tearing and burning.
Indication of immediate medical attention and special treatment needed, if necessary	
Notes to physician:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments:	No specific treatment.

5. Fire-fighting measures

Suitable extinguishing media:	Use dry chemical, CO ₂ , water spray (fog) or alcohol resistant foam.
Unsuitable extinguishing media:	Do not use water jet or water-based fire extinguishers.
Specific hazards arising from the hazardous product:	In the event of thermal decomposition or fire, vapours potentially dangerous to health may be released.
Hazardous combustion products :	Carbon oxides.
Special protective equipment and precautions for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.



6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel: Restrict access to area until completion of cleanup. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation.
- For emergency responders: Wear adequate personal protective equipment.
- Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods and materials for containment and cleaning up

- Spill: Limit the spreading of the spillage with non-combustible absorbent material (sand, earth etc). Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Keep away from heat and sources of ignition. Approach release from upwind.

7. Handling and storage

- Precautions for safe handling: Use appropriate personal protective equipment. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Do not smoke while handling. Keep containers closed when not used. Protect against electrostatic charges. Keep away from heat and sources of ignition.

- Advice on general hygiene: Eating, drinking and smoking in working areas should be prohibited. Wash hands with soap and water before meals and at the end of the work shift. Remove contaminated clothing and protective equipment before entering eating areas.

- Conditions for safe storage, including any incompatibilities: Store in a dry, cool and well ventilated place. Keep far away from sources of heat, naked flames and sparks and other sources of ignition. Ground all equipment containing material.

8. Exposure controls/Personal protection

Control parameters:

Ingredient	CAS Number	Value	Control Parameters	Basis
Methanol	67-56-1	TWA EV	200 ppm	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
			262 mg/m ³	
		STEV	250 ppm	
			328 mg/m ³	
Toluene	108-88-3	TWA EV	50 ppm	
			188 mg/m ³	

- Appropriate engineering controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Individual protection measures:

- Hand protection: Appropriate chemical resistant gloves should be worn. Impervious gloves. Viton gloves. Polyvinyl alcohol gloves. Nitrile gloves. Butyl rubber gloves.



Eye protection:	Chemical safety glasses with side shields or splash proof goggles.
Respiratory protection:	None required if handled in closed ventilation system. Where required (leak, spill, open handling of liquid), use NIOSH approved chemical cartridge respirator.
Skin and body protection:	Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance. Wear chemical resistant pants and jackets, preferably butyl or nitrile rubber. Oil resistant apron.

9. Physical and chemical properties

Appearance

Physical state:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not available
pH:	Not available
Melting point:	- 97.8 - (- 95)°C/ - 144 - (- 95)°F
Freezing point:	- 97.8 - (- 95)°C/ - 144 - (- 95)°F
Initial boiling point and boiling range:	> 64°C (> 148°F)
Flash point:	4°C c.c. (39.2°F)
Evaporation rate:	Not available
Lower flammability limits:	Not available
Upper flammability limits:	Not available
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	0.8240 g/mL
Solubility:	Soluble in water
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

10. Stability and reactivity

Reactivity:	No specific test data related to reactivity available for this product
Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of use and storage, hazardous reactions will not occur.
Conditions to avoid:	Avoid heat, open flames and all possible sources of ignition.
Incompatible materials:	Strong oxidizers. Strong bases. Acids. May be corrosive to lead, aluminum, magnesium, and platinum. Avoid natural, butyl and neoprene rubbers. Avoid prolonged contact with nitrile rubber and PVC (Toluene). May react with metallic aluminum or magnesium and generate hydrogen gas. May attack some forms of plastic, rubber, and coatings. Contact with these materials may cause a violent or explosive reaction
Hazardous decomposition products:	Carbon dioxide, carbon monoxide and formaldehyde.



11. Toxicological information

Acute toxicity:

CAS : 67-56-1

LD50 Oral (human) = 143 mg/kg
LD50 Oral (rat) = 1187 mg/kg
LD50 Skin (rabbit) = 17100 mg/kg
LC50 4 hours (rat) = 128.2 mg/L
LC50 6 hours (rat) = 87.6 mg/L

CAS : 108-88-3

LD50 Orale (rat) > 5580 mg/kg
LD50 Skin (rabbit) = 12196 mg/kg
LC50 4 hours (rat) = 12500 mg/m³

Information on the likely routes of exposure: Dermal contact. Eye contact. Inhalation. Ingestion.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:

Vapors are moderately irritating to the respiratory passages. Inhalation of high airborne concentrations can irritate mucous membranes, cause headaches, sleepiness, nausea, confusion, loss of consciousness, digestive and visual disturbances and death. The liquid when accidentally aspirated into the lungs can cause severe inflammation of the lung. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents will permanent brain and nervous system damage.

Ingestion:

If swallowed may be fatal. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury. A small amount can cause mental sluggishness, nausea and vomiting leading to severe illness, and may produce adverse effects on vision with possible blindness or death if treatment is not received.

Skin contact:

Causes moderate skin irritation. Repeated or prolonged contact may cause defatting and drying of skin which may result in skin irritation and dermatitis. May be absorbed through the skin in toxic or lethal amounts. Symptoms of exposure may include: Central nervous system depression with headache, stupor, uncoordinated or strange behavior or unconsciousness. Prolonged and or repeated skin contact with methanol soaked material has produced toxic effects including vision effects and death.

Eye contact:

Vapors are moderately irritating to the eyes. High vapor concentration or liquid contact with eyes causes irritation, tearing and burning.

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

Reproductive toxicity

Rat – Inhalation

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Experiments have shown reproductive toxicity effects in male and female laboratory animals.

Specific target organ toxicity – Single exposure

May cause damage to organs. May cause drowsiness or dizziness.

Specific target organ toxicity – Repeated exposure

May cause damage to organs through prolonged or repeated exposure

Aspiration hazard

This product may be fatal if swallowed and enter airways. If swallowed, can be aspirated into lungs and cause chemical pneumonia, varying degrees of pulmonary injury or death.



12. Ecological information

Ecotoxicity

Toxicity:

CAS: 67-56-1

Mortality LC50 - *Lepomis macrochirus* (Bluegill) - 15,400.0 mg/l - 96 h

NOEC - *Oryzias latipes* - 7,900 mg/l - 200 h

EC50 - *Daphnia magna* (Water flea) - > 10,000.00 mg/l - 48 h

Growth inhibition EC50 - *Scenedesmus capricornutum* (fresh water algae) - 22,000.0 mg/l - 96 h

CAS: 108-88-3

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 7.63 mg/l - 96 h

NOEC - *Pimephales promelas* (fathead minnow) - 5.44 mg/l - 7 d

EC50 - *Daphnia magna* (Water flea) - 8.00 mg/l - 24 h

Immobilization EC50 - *Daphnia magna* (Water flea) - 6 mg/l - 48 h

EC50 - *Chlorella vulgaris* (Fresh water algae) - 245.00 mg/l - 24 h

EC50 - *Pseudokirchneriella subcapitata* (green algae) - 10.00 mg/l - 24 h

Persistence and degradability:

CAS: 67-56-1 – rapidly biodegradable

CAS: 108-88-3 – Readily biodegradable

Bioaccumulative potential:

CAS: 67-56-1 – *Cyprinus carpio* (Carp) - 72 d at 20 °C

Bioconcentration factor (BCF): 1.0

CAS: 108-88-3 – *Leuciscus idus* (Golden orfe) - 3 d

Bioconcentration factor (BCF): 90

Mobility in soil:

No data available

Other adverse effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

13. Disposal considerations

Disposal methods:





Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. 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 Federal and Provincial waste management regulations.



14. Transport information

	TDG	DOT	IATA	IMDG
UN number:	UN1992	UN1992	UN1992	UN1992
Proper shipping name:	FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol, Toluene)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol, Toluene)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol, Toluene)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol, Toluene)
Hazard class:	3 (6.1) 	3 (6.1) 	3 (6.1) 	3 (6.1) 
Packing group:	II	II	II	II
Environmental hazard:	No	No	No	No
Additional information:	Not applicable	Not applicable	Not applicable	EmS: F-E, S-D Stowage and handling: Category B SW2

15. Regulatory information

WHMIS 1988 Classification:

B2 – Flammable liquids

D1B – Toxic material causing serious and immediate effects

D2A – Very toxic materials causing other toxic effects

D2B – Toxic materials causing other toxic effects



16. Other information

SDS information

Version: 1

Date (dd/mm/yyyy): 16/10/2023

Prepared by: CFT Canada

Abbreviations:

STEV SHORT-TERM EXPOSURE VALUE

TWAEV TIME-WEIGHTED AVERAGE EXPOSURE VALUE

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