



Safety Data Sheet

ZERO VOC THINNER



1. Identification

Product identifier	ZERO VOC THINNER		
Product code	SOL-9032		
Other means of identification	None.		
Recommended use of the chemical and restrictions on use	A protective and/or decorative finish or accompanying paint product. Not recommended for any other use not detailed on product data sheet or label.		
Manufacturer	GEMINI INDUSTRIES, INC. 2300 Holloway Drive El Reno, OK 73036 USA Tel. 1-800-262-5710 Fax 1-405-262-9310 www.geminicoatings.com	Distributor	Gemini Industries, Inc. 850 Flint Road Toronto, Ontario Canada M3J 2T7 Tel. 1-800-262-5710
Emergency phone number	24-hour Emergency (Spill, Leak, Exposure or accident) INFOTRAC 800-535-5053 Outside USA, Call Collect 1-352-323-3500 (French & English) HAZMAT Response and MSDS Help: EMI 800-510-8510		

2. Hazard identification

Summary	Keep away from heat, sparks and open flame. Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/OSHA HCS 2012/GHS



Flammable liquids (Category 2)
 Serious eye damage/eye irritation (Category 2A)
 Skin sensitizer (Category 1)
 Reproductive toxicity (Category 2)
 Specific target organ toxicity, single exposure, Narcotic effects (Category 3)

Other hazards which do not result in classification :

Acute hazard to the aquatic environment (Category 2).
 Long-term hazard to the aquatic environment (Category 2)

DANGER

H225: Highly Flammable liquid and vapour
 H319: Causes serious eye irritation
 H317: May cause an allergic skin reaction
 H336: May cause drowsiness or dizziness
 H361: Suspected of damaging fertility or the unborn child
 H411: Toxic to aquatic life with long lasting effects
 P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.
P240: Ground or bond container and receiving equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing vapours, mist and spray.
P264: Wash skin thoroughly after handling.
P271: Use only in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye protection.
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water and soap or take a shower if necessary.
P333+313: If skin irritation or a rash occurs: Get medical advice/attention.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists: Get medical advice or attention.
P308+313: IF exposed or concerned: Get medical advice/attention.
P362+364: Take off contaminated clothing and wash before reuse.
P370+378: In case of fire: Use the National Fire Protection Association Class B extinguisher for extinction.
P391: Collect spillage.
P403+P235+P233: Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405: Store locked up.
P501: Dispose of contents and container to an approved waste disposal plant.

3. Composition/information on ingredients		
Common name	CAS	Weight % content
Acetone	67-64-1	91 - 93 %
1-Chloro-4-(trifluoromethyl)benzene	98-56-6	7 - 9 %

4. First-aid measures	
Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY! Flush with water for at least 15 minutes. Remove contact lenses. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause redness and irritation to eyes. May cause an allergic reaction of the skin. May cause dry skin. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue.
Notes to the physician	Treat symptomatically. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Class B extinguishers. Dry chemicals, alcohol resistant foam, carbon dioxide (CO ₂). Do not use direct water jet.
Specific hazards arising from the chemical	Very flammable liquid and vapours. Vapours are heavier than air and may travel to an ignition source distant from the material handling point. May be ignited by heat, sparks, flame or static electricity. Do not apply to hot surfaces. Contact with strong oxidizers may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst. Emits toxic fumes under fire conditions.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Water spray can reduce the intensity of the flames. However, the water jets can spread the fire. If water is used, fog nozzles are preferable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry in sewer and other enclosed area. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Remove sources of ignition. Ventilate the area well. Stay against the wind spill. Stop leak, if it's possible to do so without risk. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Use non-sparking and antistatic tools. Dispose via a licensed waste disposal contractor. Finish cleaning the contaminated surface by rinsing with soapy water. PS: Rags and others materials soaked with paint or solvent may spontaneously catch fire if improperly store or discarded. Immediately after each use place rags and paper towels in a sealed water-filled metal container to prevent spontaneous combustion.

7. Handling and storage

Precautions for safe handling	Keep away from heat, sparks and open flame. Turn off all pilot lights, flames, stoves, heaters, electric motors, welding equipment and other sources of ignition. Use non-sparking and antistatic tools. Ground/bond all containers when transferring large quantities (5 gallons US or 20 L and more). Use only in well ventilated area. Avoid prolonged or repeated breathing of vapour or mists. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Containers of this material may be hazardous even when empty. Since empty containers retain product residues (vapour, liquid), all hazard precautions given in this sheet must be observed. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse. Rags, steel wool and paper towels soaked with this product may overheat and spontaneously ignite if piled in a heap. After use immediately store them in water-filled metal can with tight fitting lid.
Conditions for safe storage, including any incompatibilities	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Store tightly closed and in properly labelled container in a dry, cool and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from oxidizing materials and incompatible materials (see section 10).
Storage temperature	10 to 25°C (50 to 77°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Acetone: 2500 ppm.			
Acetone	STEL	500 ppm		ACGIH , BC
		750 ppm	1782 mg/m ³	ON
		1000 ppm	2380 mg/m ³	RSST
		1000 ppm	2400 mg/m ³	OSHA
	TWA (8h)	250 ppm		ACGIH , BC
		250 ppm	590 mg/m ³	NIOSH
		500 ppm	1188 mg/m ³	ON
		500 ppm	1190 mg/m ³	RSST
		750 ppm	1782 mg/m ³	OSHA
1-Chloro-4-(trifluoromethyl)benzene	TWA (8h)	25 ppm		Other
Appropriate engineering controls	Provide sufficient mechanical ventilation (general and/or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.			
Individual protection measures				
Eye	Wear chemical splash goggles.			
Hands	Wear Neoprene gloves. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.			
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. If necessary, wear an apron or long-sleeve protective coverall suit.			
Respiratory	Respiratory protection is not required for normal use. Respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 and approved by NIOSH / MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times the exposure limit, wear a half mask respirator with organic vapour cartridges fitted with P100 filters. For an APF until maximum 100 times of exposure limit, wear a full face respirator mask with organic vapour cartridges and P100 filters.			
Feet	Wear rubber boots to clean up a spill.			

9. Physical and chemical properties

Physical state	Liquid	Flammability	Flammable
Colour	Clear	Flammability limits	N/Av.
Odour	Of acetone	Flash point	<0 °C (32 °F)
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	N/Av.	Sensibility to electrostatic charges	Yes
Melting point	N/Av.	Sensibility to sparks and/or friction	N/Av.
Freezing point	N/Av.	Vapour density	>1 (Air = 1)
Boiling point	56 °C (132.8 °F)	Relative density	0.82 kg/L (Water = 1)

Solubility	Soluble	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	> Butyl Acetate	Decomposition temperature	N/Av.
Vapour pressure	N/Av.	Viscosity	N/Av.
Percent Volatile	100%	Molecular mass	N/Ap.
N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidizing agents (such as nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong bases, mineral acids.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information


Numerical measures of toxicity	<p>Acetone</p> <p>Ingestion 5800 mg/kg Rat LD50 Inhalation 71.4 mg/l/4h Rat LC50 Skin 15800 mg/kg Rabbit LD50</p> <p>1-Chloro-4-(trifluoromethyl)benzene</p> <p>Ingestion 5546 mg/kg Rat LD50 Inhalation 20 mg/l/4h Mouse LC50 22 mg/l/4h Rat LC50 Skin >2000 mg/kg Rabbit LD50</p>
Likely routes of exposure	Skin, eyes, inhalation, ingestion.
Delayed, immediate and chronic effects	<p>Eye contact May cause irritation, redness, tearing and blurred vision. Acetone causes eye irritation in rabbits (Draize test, OECD 405). 1-Chloro-4-(trifluoromethyl)benzene is not irritating in rabbits (in vivo test).</p> <p>Skin contact Prolonged and repeated contact may cause skin drying, cracking or irritation. Acetone is not irritating to the skin (OECD 404). 1-Chloro-4-(trifluoromethyl)benzene is not irritating in rabbits (in vivo test).</p> <p>Inhalation Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions.</p> <p>Ingestion May cause gastro-intestinal irritation with nausea and vomiting. Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness.</p> <p>Respiratory or skin sensitization 1-Chloro-4-(trifluoromethyl)benzene is a skin sensitizer (mouse, OECD TG 429). May cause an allergic reaction of the skin. This product is not a respiratory sensitizer.</p> <p>IARC/NTP Classification No ingredients listed.</p> <p>Carcinogenicity Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p>Mutagenicity</p>

	<p>Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p>Reproductive toxicity The product has an embryotoxic and/or fetotoxic in laboratory animals.</p> <p>Specific target organ toxicity - single exposure Central nervous system.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>
Interactive effects	No information available for this product.
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.


12. Ecological information

Ecological toxicity	<p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 4.74-6.33 mg/L; 96 h (acetone)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 12600-12700 mg/L; 48 h (acetone)</p> <p>Fish - Danio rerio LC50 3 mg/L; 96h (CAS no 98-56-6) OECD 203</p> <p>Aquatic Invertebrate - Daphnia magna (semi-static) EC50 2 mg/L; 48h (CAS no 98-56-6)</p>
Persistence	The product contains components that may persist in the environment.
Degradability	Acetone is readily biodegradable at 91% in 28 days (OECD 301B). Acetone undergoes slow photolysis in air (half-life time $T_{1/2} = 80$ h) and in water ($T_{1/2} > 43$ h). 1-Chloro-4-(trifluoromethyl)benzene is not degraded by photolysis in water. It has also showed to be not ready biodegradable, 19.2% during 28 days (OECD TG 301D).
Bioaccumulative potential	Acetone has a Bioconcentration Factor (BCF) of 0.65 and a partition factor Log Kow of -0.24, indicating no bioaccumulation. According to an estimated Bioconcentration Factors (BCF) of 110 in fish and an estimated partition coefficient log Kow of 3.6 suggest that 1-Chloro-4-(trifluoromethyl)benzene has a potential for bioaccumulation in aquatic organisms is high (TOXNET).
Mobility in soil	Acetone evaporates very rapidly from dry soil surfaces. It is very soluble in water and it is expected to have very high mobility in soil with no adsorption to sediment. The Koc value of 1600 suggest that 1-Chloro-4-(trifluoromethyl)benzene is expected to have low mobility in soil (TOXNET).
Other adverse effects	This chemical does not deplete the ozone layer.

13. Disposal considerations

Container 	<p>Important! Prevent waste generation. Use in full. DO NOT dispose of residue in sewers, streams or drinking water supply. DO NOT puncture, cut, heat or burn container, even after use. Paint residues, including lacquers, stains, shellac, varnish, solvents and paint thinners, can be reprocessed (recycle) anywhere there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.</p>
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14. Transport information

UN Number	UN 1263
UN Proper Shipping Name	PAINT RELATED MATERIAL
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	Permit required for transportation with proper placards displayed on vehicle.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 3
Packing group	II
IMO/IMDG - International Maritime Transport	
Classification	UN 1263. PAINT RELATED MATERIAL. Class 3, PG II. Emergency schedules (EmS-No) F-E, S-E
IATA - International Air Transport Association	
Classification	UN 1263. PAINT RELATED MATERIAL. Class 3, PG II.
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Acetone	67-64-1		X		
1-Chloro-4-(trifluoromethyl)benzene	98-56-6		X		

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CERCLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Priority
Acetone	67-64-1	X	X			X				
1-Chloro-4-(trifluoromethyl)benzene	98-56-6	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations

WHMIS 1988



B2

D2B

Class B2 : Flammable Liquid

Class D2B : Toxic material causing other toxic effects

HMIS



NFPA



16. Other information

Date
(YYYY-MM-DD)

GEMINI INDUSTRIES, INC. 2016-02-19

Version

01

Other
information

- This SDS and the GHS hazards classification is a French translation of the original English version (SDS) from the manufacturer.

REFERENCES:

- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, <http://hazmap.nlm.nih.gov/index.php>
- TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, <http://toxnet.nlm.nih.gov/>
- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <http://www.reptox.csst.qc.ca>
- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, <http://www.cdc.gov/niosh/npg/npg.html>
- IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), <http://www.inchem.org>
- OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, <http://webnet.oecd.org/HPV/UI/Search.aspx>

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

HMIS: Hazardous Materials Identification System

NFPA: National Fire Protection Association

OSHA: Occupational Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

RSST: Règlement sur la santé et la sécurité du travail (Québec)

GHS: Globally Harmonized System

IARC: International Agency for Research on Cancer

IDLH: Immediately Dangerous to Life or Health

STEL: Short Term Exposure Limit (15 min)

TWA: Time Weighted Averages

WHMIS: Workplace Hazardous Materials Information System

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