

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP ERASE AERO DZ

Material number : 31111C

Manufacturer or supplier's details

Company : Zep Inc.

Address : 11627 - 178 Street
Edmonton, Alberta T5S 1N6
Canada

Telephone : 404-352-1680

Emergency telephone numbers**For SDS Information** : Compliance Services 1-877-428-9937**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded**For a Transportation
Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.**Recommended use of the chemical and restrictions on use**

Recommended use : Specialty Cleaner and Remover

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a compressed gas
Colour	clear, colourless
Odour	strong, solvent-like

GHS Classification

Flammable aerosols : Category 1
 Gases under pressure : Compressed gas
 Skin irritation : Category 2
 Eye irritation : Category 2A
 Carcinogenicity : Category 1B
 Reproductive toxicity : Category 2
 Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
 Specific target organ toxicity - repeated exposure (Inhalation) : Category 2


GHS label elements

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	<p>H222 Extremely flammable aerosol. H280 Contains gas under pressure; may explode if heated. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H350 May cause cancer. H361 Suspected of damaging fertility or the unborn child. H373 May cause damage to organs through prolonged or repeated exposure if inhaled.</p>
Precautionary statements	:	<p>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. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>Response: P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. 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. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before reuse.</p> <p>Storage: P403 Store in a well-ventilated place. P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.</p> <p>Disposal: Dispose of contents/container in accordance with local regulation.</p>

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
tetrachloroethylene	127-18-4	>= 30 - < 50
toluene	108-88-3	>= 20 - < 30
ethanol	64-17-5	>= 10 - < 20
butanone	78-93-3	>= 5 - < 10
carbon dioxide	124-38-9	>= 1 - < 5
Alcohols, C9-11, ethoxylated	68439-46-3	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
If on clothes, remove clothes.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
If in eyes, rinse with water for 15 minutes.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed.
Symptoms may include irritation, redness, pain, and rash.
Causes skin irritation.
Causes serious eye irritation.
Review section 2 of SDS to see all potential hazards.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
Water spray jet

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon dioxide (CO ₂) Carbon monoxide Smoke Chlorine compounds
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	: Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms.
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ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Always replace cap after use.
 Dispose of rinse water in accordance with local and national regulations.
 Do not breathe vapours or spray mist.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
 No smoking.
 Observe label precautions.
 Keep in a dry, cool and well-ventilated place.
 Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
tetrachloroethylene	127-18-4	STEL	100 ppm 678 mg/m ³	CA AB OEL
		TWA	25 ppm 170 mg/m ³	CA AB OEL
		TWA	25 ppm	CA BC OEL
		STEL	100 ppm	CA BC OEL
		TWAEV	25 ppm 170 mg/m ³	CA QC OEL
		STEV	100 ppm 685 mg/m ³	CA QC OEL
		TWA	25 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm	OSHA Z-2
		CEIL	200 ppm	OSHA Z-2
		Peak	300 ppm	OSHA Z-2
		TWA	25 ppm 170 mg/m ³	OSHA P0
		STEL	100 ppm 685 mg/m ³	CAL PEL
		C	300 ppm	CAL PEL
PEL	25 ppm 170 mg/m ³	CAL PEL		
toluene	108-88-3	TWA	50 ppm 188 mg/m ³	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	50 ppm 188 mg/m ³	CA QC OEL
		TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m ³	NIOSH REL

SAFETY DATA SHEET



ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

		ST	150 ppm 560 mg/m3	NIOSH REL
		TWA	200 ppm	OSHA Z-2
		CEIL	300 ppm	OSHA Z-2
		Peak	500 ppm	OSHA Z-2
		TWA	100 ppm 375 mg/m3	OSHA P0
		STEL	150 ppm 560 mg/m3	OSHA P0
		PEL	10 ppm 37 mg/m3	CAL PEL
		C	500 ppm	CAL PEL
		STEL	150 ppm 560 mg/m3	CAL PEL
ethanol	64-17-5	TWA	1,000 ppm 1,880 mg/m3	CA AB OEL
		STEL	1,000 ppm	CA BC OEL
		TWAEV	1,000 ppm 1,880 mg/m3	CA QC OEL
		TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
		STEL	1,000 ppm	ACGIH
		PEL	1,000 ppm 1,900 mg/m3	CAL PEL
butanone	78-93-3	TWA	200 ppm 590 mg/m3	CA AB OEL
		STEL	300 ppm 885 mg/m3	CA AB OEL
		TWA	50 ppm	CA BC OEL
		STEL	100 ppm	CA BC OEL
		TWAEV	50 ppm 150 mg/m3	CA QC OEL
		STEV	100 ppm 300 mg/m3	CA QC OEL
		TWA	200 ppm	ACGIH
		STEL	300 ppm	ACGIH
		TWA	200 ppm 590 mg/m3	NIOSH REL
		ST	300 ppm 885 mg/m3	NIOSH REL
		TWA	200 ppm 590 mg/m3	OSHA Z-1
		TWA	200 ppm 590 mg/m3	OSHA P0
		STEL	300 ppm 885 mg/m3	OSHA P0
		PEL	200 ppm 590 mg/m3	CAL PEL
		STEL	300 ppm 885 mg/m3	CAL PEL
carbon dioxide	124-38-9	TWA	5,000 ppm	CA AB OEL

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

			9,000 mg/m ³	
		STEL	30,000 ppm 54,000 mg/m ³	CA AB OEL
		TWA	5,000 ppm	CA BC OEL
		STEL	15,000 ppm	CA BC OEL
		STEV	30,000 ppm 54,000 mg/m ³	CA QC OEL
		TWAEV	5,000 ppm 9,000 mg/m ³	CA QC OEL
		TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m ³	NIOSH REL
		ST	30,000 ppm 54,000 mg/m ³	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m ³	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m ³	OSHA P0
		STEL	30,000 ppm 54,000 mg/m ³	OSHA P0
		PEL	5,000 ppm 9,000 mg/m ³	CAL PEL
		STEL	30,000 ppm 54,000 mg/m ³	CAL PEL

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
TETRACHLOROETHENE	127-18-4	Tetrachloroethylene	In blood	Prior to shift (16 hours after exposure ceases)	0.5 mg/l	ACGIH BEI
		Tetrachloroethylene	In end-exhaled air	Prior to shift (16 hours after exposure ceases)	3.ppm	ACGIH BEI
METHYLBENZENE	108-88-3	Toluene	In blood	Prior to last shift of workweek	0.02 mg/l	ACGIH BEI
		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI
		o-Cresol	Urine	End of shift (As soon as possible)	0.3.mg/g Creatinine	ACGIH BEI

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

				after exposure ceases)		
2-BUTANONE	78-93-3	methyl ethyl ketone	Urine	End of shift (As soon as possible after exposure ceases)	2 mg/l	ACGIH BEI

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Material

Remarks

: Protective gloves

: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing problems.

Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection

: Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

: When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aerosol containing a compressed gas

Colour : clear, colourless

Odour : strong, solvent-like

Odour Threshold : No data available

pH : Not applicable

Melting point/freezing point : Not applicable

Boiling point : No data available

Flash point :
not determined

Evaporation rate : 1

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Flammability (solid, gas)	: Extremely flammable aerosol.
Upper explosion limit	: not determined
Lower explosion limit	: not determined
Vapour pressure	: 0.59 hPa
Relative vapour density	: No data available
Density	: 0.93 g/cm ³
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: No data available
Heat of combustion	: 20.94 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon dioxide (CO ₂) Contact with acids releases sulphur dioxide. Phosgene Chlorine Hydrogen chloride gas

SECTION 11. TOXICOLOGICAL INFORMATION

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Potential Health Effects

Aggravated Medical Condition : None known.

Symptoms of Overexposure : Effects are immediate and delayed.
Symptoms may include irritation, redness, pain, and rash.

Carcinogenicity:

IARC Group 2A: Probably carcinogenic to humans

tetrachloroethylene 127-18-4

Acute toxicity**Product:**

Acute oral toxicity : Acute toxicity estimate : 4,630 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:**tetrachloroethylene:**

Acute oral toxicity : LD50 Oral Rat: 2,629 mg/kg

Acute inhalation toxicity : LC50 Rat: 34,200 mg/l
Exposure time: 8 h

Acute dermal toxicity : LD50 Dermal Rabbit: 5,000 mg/kg

ethanol:

Acute oral toxicity : LD50 Oral Rat: 7,060 mg/kg

Acute inhalation toxicity : LC50 Rat: 124.7 mg/l
Exposure time: 4 h

butanone:

Acute oral toxicity : LD50 Oral Rat: 2,737 mg/kg

Acute inhalation toxicity : LC50 Mouse: 32,000 mg/l
Exposure time: 4 h

LC50 : 38,000 mg/l

Acute dermal toxicity : LD50 Dermal Rabbit: 6,480 mg/kg

Alcohols, C9-11, ethoxylated:

Acute oral toxicity : LD50 Oral Rat: 1,400 mg/kg

Skin corrosion/irritation

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

tetrachloroethylene:

toluene:

ethanol:

butanone:

carbon dioxide:

Alcohols, C9-11, ethoxylated:

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may decrease the skin.

Components:

toluene:

Remarks: No data available

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential**Product:**

Partition coefficient: n-octanol/water : Remarks: No data available

Components:**tetrachloroethylene :**
Partition coefficient: n-octanol/water : log Pow: 3.40**toluene :**
Partition coefficient: n-octanol/water : Pow: 2.73**butanone :**
Partition coefficient: n-octanol/water : log Pow: 0.29**Mobility in soil**

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

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

Components:**toluene :**
Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.Contaminated packaging : Empty remaining contents.
Dispose of as unused product.

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation (TDG) / Règlement Pour Le Transport (TMD): (Canada): UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity
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Transportation Regulation / Règlement Pour Le Transport: IMDG (Vessel): UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity

Transportation Regulation / Règlement Pour Le Transport: IATA (Cargo Air): UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity
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Transportation Regulation / Règlement Pour Le Transport: IATA (Passenger Air): UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity
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Transportation Regulation / Règlement Pour Le Transport: 49 CFR (USA): UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity
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The product as delivered to the customer conforms to packaging requirements for shipment by road under Transport Dangerous Goods (TDG) Canada regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
DSL	All components of this product are on the Canadian DSL

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

ZEP ERASE AERO DZ

Version 1.0

Revision Date 02/20/2017

Print Date 10/05/2017

WHMIS - GHS Label Information:

Hazard pictograms



Signal word

: **Danger:**

Hazard statements

: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements

:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/ attention. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse.

Storage: Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal: Dispose of contents/container in accordance with local regulation.

Version:	1.0
Revision Date:	02/20/2017
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