1. Identification of Substance & Company

Company Details:
Hilti (New Zealand) Ltd
Unit 1/B, 525 Great South Rd
Penrose
Auckland, 1061
PO Box 112- 030, Penrose
Ph 09 526 7783 (between 7-30 AM and 6-30 PM)
EMERGENCY TELEPHONE NUMBER
0800 623 000 (National Poisons Centre)

Product

Product name	Hilti Cleaning Spray
Other names	NA
Product code	NA
HSNO approval	HSR002515
Approval description	Aerosols (Flammable) Group Standard 2006
UN number	1950
Proper Shipping Name	AEROSOL, ENVIRONMENTALLY HAZARDOUS
Packaging group	NA
Hazchem code	3Z
Uses	Cleaning agent

2. Hazard Identification

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002515, Aerosols (Flammable) Group Standard 2006), and is classified as follows:

Classes	Hazard Statements
2.1.2A	Extremely flammable aerosol.
6.1E (aspiration)	May be fatal if swallowed and enters airways.
6.3B	Causes mild skin irritation.
6.4A	Causes eye irritation.
6.9 (narcotic)	May cause drowsiness or dizziness.
9.1B	Toxic to aquatic life with long lasting effects.

SYMBOLS

DANGER

Other Classifications

There are no other Classifications that are known to apply.

Precautionary Statements

Read label before use.
Keep away from ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use."
Keep out of reach of children.
Wash hands thoroughly after handling.
Wear eye/face protection.
Avoid breathing vapours/spray.
Use only outdoors or in a well-ventilated area.

Avoid release to the environment.
Collect spillage.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Further precautionary statements can be found in Section 4 – First Aid.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Class for ingredient(s)	Conc (%)
Naphtha (petroleum), hydrotreated light (benzene <0.1%)	64742-49-0	3.1B, 6.1E (aspiration), 6.3B, 6.4A, 9.1B	50-75%
acetone	67-64-1	3.1B, 6.1E (oral), 6.3B, 6.4A	25-50%
1-methoxypropan-2-ol	107-98-2	3.1C, 6.1E (oral), 6.3B, 6.4A	5-10%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). If medical advice is needed, have product container or label at hand. IF exposed or concerned: Get medical advice.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Rinse mouth.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact 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 re-use.

Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: This product is a flammable aerosol. This product has the potential to cause fire or to create an additional hazard during fire

Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.

Unsuitable extinguishing substances: Water with full jets.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: 3Z

6. Accidental Release Measures

Containment If greater than *1000L is stored,* secondary containment and emergency plans to manage any potential spills must be in place.In all cases design storage to prevent discharge to stormwater.

Emergency procedures The nature of the product (aerosol) will limit a spill. In the event of large spillage (>100 cans) alert the fire brigade to location and give brief description of hazard.
Shut off all possible sources of ignition.
Wear protective equipment to prevent skin, eye and respiratory exposure.
Clear area of any unprotected personnel.
Contain any liquid spill using sand, earth or vermiculite.
If spray or gas escapes, increase ventilation.

	Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately)
Clean-up method	Note: flammable vapours are possible. Collect undamaged cans and recycle. Collect damaged cans and seal in properly labelled containers or drums for disposal.
Disposal	Collect recoverable material into labelled containers for recycling or salvage. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Be aware of fire risk – avoid sources of ignition.

7. Storage & Handling

Storage	Danger of bursting! Ensure good ventilation/extraction in the workplace. Avoid storage of harmful substances with food. Containers should be kept dry and closed at 5 – 25°C. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10 and flammable substances. Hazardous atmosphere zones and location test certificates must be established if storing greater than 3000 L. Containers must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Replace cap when not in use. Beware: container 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 Keep ignition sources away – do not smoke Without adequate ventilation formation of explosive mixtures is possible. See section 8 with regard to personal protective equipment requirements

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 10mg/m^3 for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (2013)	Ingredient	WES-TWA	WES-STEL
	acetone	500ppm, 1185mg/m^3	1000ppm, 2375 mg/m^3
	1-methoxypropan2-ol	100ppm, 369mg/m^3	150ppm, 553mg/m^3

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes

Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin

Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves, e.g. PVA, Nitrile or Neoprene. Natural rubber gloves are NOT recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Use an organic vapour cartridge. If using a respirator, ensure that the are in good working order and that the respirator is fitted to ensure effective seal and comfort. If very high exposures are possible, self-contained breathing apparatus should be considered.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	aerosol containing colourless liquid
Odour	mineral oil like
pH	not determined
Vapour pressure	380 hPa (285mmHg) at 20°C
Viscosity	no data
Boiling point	Not applicable
Volatile materials	99.5% organic solvents. EU-VOC: 743.3 g/L
Freezing / melting point	not applicable
Solubility	not miscible in water
Specific gravity / density	0.747 g/cm^3 at 20°C
Flash point	aerosol
Danger of explosion	product is not explosive, however formation of explosive air/steam mixtures is possible.
Ignition temperature	200°C
Upper & lower flammable limits	LEL: 1.1, UEL 13.0
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Aerosols are incompatible with explosives, flammable liquids/ solids, oxidising materials.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Water.
Hazardous reactions	none known

11. Toxicological Information

Summary

No specific data is available for this mixture.
Hilti Cleaning spray is a solvent based product and most likely effects of exposure relate to inhalation of vapour – light headedness, headache, dizziness, drowsiness, nausea.
IF ON SKIN: may produce mild skin irritation.
IF IN EYES: may cause eye irritation.
IF SWALLOWED: unlikely route of exposure, however the liquid is an aspiration hazard. Aspiration into the lungs may cause chemical pneumonitis (coughing, difficulty breathing and cyanosis). Ingestion may also cause irritation of the gastrointestinal tract, with nausea and vomiting.
There are some indications of long term health effects with frequent, ongoing use of organic solvents (similar to alcohol abuse).
Where available, toxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below:

Supporting Data

Acute	**Oral**	Using LD_{50}'s for ingredients, the calculated LD_{50} (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: acetone 3000 mg/kg (mouse), 1-methoxypropan2-ol 4600-5500mg/kg (dog). This mixture is an aspiration hazard.
	Dermal	No evidence of dermal toxicity
	Inhaled	No evidence of acute inhalation toxicity. (see chronic)
	Eye	The mixture is considered to be an eye irritant. Acetone and 1-methoxypropan-2-ol are considered eye irritants.
	Skin	The mixture is considered to be a mild skin irritant. Naphtha petroleum is considered a mild skin irritant.
Chronic	**Sensitisation**	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	The mixture is not considered to be a carcinogen. No ingredient present >0.1% is considered a carcinogen.
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	The naptha petroleum is not classed by EPA as a systemic toxicant, however prolonged and repeated exposure to hydrocarbon solvents may affect the central nervous system, therefore classed 6.9 (narcotic effect).
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is considered ecotoxic in the aquatic environment.

Supporting Data

Aquatic	Naphtha petroleum is toxicity towards fish, crustaceans and algae.
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	No data.
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Pressurised container: Do not puncture or incinerate containers. Send to landfill or similar. Dispose of large quantities as hazardous waste.

14. Transport Information

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1950	**Proper shipping name:**	AEROSOL, ENVIRONMENTALLY HAZARDOUS
Class(es)	2.1	**Packing group:**	NA
Precautions:	Ecotoxic	**Hazchem code:**	3Z

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002515, Aerosols (Flammable) Group Standard 2006.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing > any quantity.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 1000L is stored.
Approved handler	Required if > 3000L is handled or stored.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored in any one location.
Location test certificate	Required if > 3000L is stored in any one location.
Flammable zone	Must be established if > 3000L is stored.
Fire extinguisher	If > 3000L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a l quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002515, Aerosols (Flammable) Group Standard 2006 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ERMA	Environmental Risk Management Authority (now EPA)
EPA	Environmental Protection Agency (previously known as ERMA)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
OSH - DoL	The Occupational Safety and Health Service of the Department of Labour (NZ)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) http://www.epa.govt.nz/hs/compliance/chemicals.html , for specific chemicals.
EPA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
Controls Matrix	Part of the EPA New Zealand User Guide to the HSNO Control Regulations
WES 2013	The NZ Workplace Exposure Standards Effective from 2013, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References:	Suppliers SDS

Review

Date	**Reason for review**
October 2014	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications, are based on our experience, EPA Guidelines and international classifications. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: ***(09) 940 30 80.***