



SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

GHS Product Identifier FINALE SOLVENT

Company Name

Professional Dentist Supplies Pty. Ltd. (ABN 69 088 275 576)

Address

3/8 Nicole Close Bayswater North, VIC 3153 Australia

Telephone/Fax Number Tel: +61 3 9761 6615

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Emergency phone number

+61 3 9761 6615 BH

Recommended use of the chemical and restrictions on use

Finishing solvent for the smoothing of trimmed edges on mouthguards, impression trays and splints for improved patient comfort and acceptance. Trichloroethylene is considered hazardous according to the criteria of Worksafe Australia.

Other Names	Name	Product Code
Trichloroethylene UN Number: 1710	FINALE SOLVENT 15 mL AMBER GLASS BOTTLE	34465
	FINALE SOLVENT 1 LITRE CONTAINER	34460

Other Information PROFESSIONAL DENTIST SUPPLIES Ph: 03 9761 6615 (business hours)

The information contained within this material safety data sheet (MSDS) is believed to be accurate on the date of issue and in accordance with the information provided to us. Any person handling the product referred to in this material safety data sheet do so at their own risk. Professional Dental Supplies accepts no liability whatsoever for damage or injury caused from the use of this information or of suggestions contained herein.

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

Classification of the substance or mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (edition 7.5)

Classification:

Skin Corrosion/Irritation: Category 2 Eye Damage/Irritation:

Category 2A Germ Cell Mutagenicity: Category 2 Carcinogenicity:

Category 1

STOT Single Exposure Category 3 (narcotic)

Hazardous to the Aquatic Environment - Long-Term Hazard: Category 3

Signal Word (s)

Danger

Hazard Statement (s)

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H341 Suspected of causing genetic defects.
 H350 May cause cancer.
 H412 Harmful to aquatic life with long lasting effects.

General Precautionary Statement (s)

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.

Pictogram(s) Health hazard, Exclamation mark



Precautionary statement- Prevention

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response

P308+P313 IF exposed or concerned: Get medical advice/attention.

SKIN:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.

EYES:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

INHALATION:

P304+P340 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.

P337+P313 If eye irritation persists: Get medical advice/attention.

Precautionary statement –STORAGE

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS

Ingredients	NAME	CAS	Proportion
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Trichloroethylene

79-01-6

95-100%

SECTION 4 - FIRST AID MEASURES

Inhalation	If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.
Ingestion	Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.
Skin	Remove contaminated clothing. Wash affected area thoroughly with soap and water. Wash contaminated clothing before re-use or discard. Seek medical attention.
Eye contact	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.
First aid	Eyewash Normal washroom facilities. Treat symptomatically.
Advice to DR.	Treat symptomatically For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126) or a doctor at once.
Other information	Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use carbon dioxide, dry chemical, foam, water fog or water mist.
Unsuitable Extinguishing Media	Do not use water jet.
Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide, chlorine, phosgene and hydrogen chloride gas.
Specific Hazards Arising from The Chemical	Combustible liquid. This product will readily burn under fire conditions.
Hazchem Code	2Z
Decomposition Temperature	>125° C
Precautions in connection with Fire	Fire fighters should wear full protective clothing and self- contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location. This product should be prevented from entering drains and watercourses. Water spray may be used to cool down heat-exposed containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible, contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

SECTION 7 - HANDLING AND STORAGE**Precautions for safe handling**

Toxic substance and combustible substance. Avoid exposure. Wear appropriate protective clothing and equipment. Use in designated areas with local exhaust ventilation. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Do not smoke. Exposure without protection must be prevented. Keep containers sealed when not in use. Avoid inhalation of vapours and mists, and skin or eye contact. Do not use near ignition sources. Do not

pressurise, cut, heat or weld containers as they may contain hazardous residues. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all applicable local and national regulations.

CORROSIVENESS STORAGE REGULATIONS

Not corrosive to aluminium.

STORAGE REGULATIONS & TEMPERATURES

Classified as a class C2 (combustible liquid) for the purpose of storage and handling, in accordance with the requirements of AS1940. This product should be stored and used in a well-ventilated area away from naked flames, sparks and other sources of ignition.

Store at < 30°C

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Trichloroethylene poisoning can occur through the skin, swallowing or by inhalation. Of these, breathing it in is by far the most likely way for poisoning to occur. Signs of trichloroethylene poisoning include dizziness, headaches, confusion and in high doses, unconsciousness and irregular heartbeats. Contact with trichloroethylene liquid or vapour can cause eye irritation and damage to the cornea.

Trichloroethylene is a skin irritant; over time skin contact with trichloroethylene will cause reddening and defatting of the skin. Liquid trichloroethylene can be absorbed through the skin.

Repeated exposure to trichloroethylene can result in vertigo, dizziness, headaches, memory loss and difficulty in concentration. Prolonged exposure to trichloroethylene may cause cancer.

Acute

Inhalation: Vapour is irritant to the upper respiratory tract. Inhalation of vapour can result in headache, dizziness and confusion with high doses causing narcosis. Exposure to high doses may cause irregular heartbeats.

Swallowed: Swallowing may cause nausea, vomiting, headache and confusion. Ingestion of larger volumes (>50 ml) can cause central nervous system depression and effects on the heart. The main cardiac effects are increase in heart rate and irregular heartbeats.

Eye: Irritant to the eyes. Liquid and vapour can produce corneal damage.

Skin: Severe skin irritant. Repeated skin exposure can cause defatting of the skin and reddening. Liquid can be absorbed through the skin.

Chronic

Repeated exposure can cause central nervous system disturbances such as vertigo, dizziness, headaches, memory loss and impaired ability to concentrate.

Occupational exposure limit values

No exposure value assigned for this material by Safe Work, Australia. However, the available exposure limits for ingredients are listed below:

Safe Work, Australia Exposure Standards:

The current national exposure standards are an average exposure limit of 50 ppm TWA and a short-term exposure limit of 200 ppm STEL. However, these limits need to be reviewed in the light of recent health data so exposure should be kept as low as possible.

Trichloroethylene 50 ppm TWA

200 ppm STEL (Short Term Exposure Limit)

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15-minute period which should not be exceeded at any time during a normal eight-hour workday.

'Sk' Notice: Absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. Trichloroethylene in End of shift at end of workweek- end-exhaled air

Biological Limit Values

Biological Exposure Indices (BEI) from American Conference of Industrial Hygienists (ACGIH) for ingredients are as follows:

Determinant	Sampling Time	BEI TRICHLOROETHYLENE [79-01-6]
Trichloroacetic acid in urine	End of shift at end of workweek	15mg/L
Trichloroethanol in blood	End of shift at end of workweek	0.5mg/L
Trichloroethylene in blood	End of shift at end of workweek	-
Trichloroethylene in end-exhaled air	End of shift at end of work week	-

Appropriate engineering controls

Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

This substance is toxic and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. Alternatively, a process enclosure system such as a fume cupboard should be employed. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn. If local exhaust ventilation is used, ensure sufficient air is replaced to compensate the air that has been removed. Refer to AS/NZS 60079.10.1:2009 Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable organic vapour filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as PVA. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
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Form	Liquid	Appearance	Clear colourless Liquid
Colour	clear	Odour	Chloroform like odour
Decomposition Temperature	>125 °C	Melting Point	-86.5°C
Boiling Point	86.7 °C	Solubility in Water	1.07 g/L at 20°C
Specific Gravity	1.46	pH	7.2
Vapour Pressure	58 mmHg	Vapour Density (Air=1)	Not available
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	Not available	Partition Coefficient: n- octanol/water	Not available
Flash Point	Not relevant	Flammability	combustible
Auto-Ignition Temperature	410 °C	Flammable Limits - Lower	Not available
Flammable Limits	8.0-10.5% in air	Density	1.465 g/mL

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Refer to Sec 10: Possibility of hazardous reactions.. in contact with hot metals, such as magnesium and aluminium at very high temperatures (300-600°C) it decomposes readily to form phosgene and hydrogen chloride. Such conditions are seen in areas where arc welding occurs next to degreasing operations. Aluminium is more reactive than magnesium. In the presence of strong alkalis such as sodium hydroxide, dichloroacetylene is formed which is explosive and flammable.
Chemical Stability	Stable under normal conditions of storage and handling Trichloroethylene is not flammable, however, the vapour may ignite if concentrated near heat sources
Conditions to Avoid	High temperature, light, moisture (formation of hydrogen chloride gas). Vapours/air mixtures are explosive under intense heating. Thermal decomposition at high temperature.
Incompatible Materials	Potassium hydroxide, sodium and sodium hydroxide.
Hazardous Decomposition	Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide, carbon dioxide, chlorine, phosgene and hydrogen chloride gas.
Products Possibility of hazardous reactions	Will react with incompatible materials.
Hazardous Polymerization	Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

From human evidence and results of the animal studies, trichloroethylene meets the Approved Criteria for classification as a skin irritant (R38 - Irritating to skin) and an eye irritant (R36 - Irritating to eye).

Toxicology Information

The available acute toxicity data for the ingredients are given below.

Acute Toxicity - Oral

For Trichloroethylene:

LD50 (Rat): 7,200 mg/kg

Acute Toxicity – Dermal

For Trichloroethylene:
LD50 (Rabbit): > 29,000 mg/kg

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting. Ingestion of large quantities may depress the central nervous system.

Inhalation

LC50 (Rat): 12,500ppm/4hr (67 mg/l)

Skin

May irritate to skin. The symptoms may include redness, itching and swelling. Irritating to skin. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye

Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Suspected of causing genetic defects. Classified as suspected to induce heritable mutations.

Carcinogenicity

May cause cancer. Classified as a Known or presumed human carcinogen.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

See Section 11: STOT-single exposure

Aspiration Hazard

Not expected to be an aspiration hazard.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Persistence and degradability

not available

Mobility

Not available

Bio accumulative Potential Environmental Protection

Prevent this material entering waterways, drains and sewers.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

SECTION 14 - TRANSPORT INFORMATION

Road and Rail Transport

This material is classified as Dangerous Goods Division 6.1 Toxic Substance according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7.5 th Edition).

Class 6 Dangerous Goods are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 3, Flammable Liquids, if the Class 3 dangerous goods are nitromethane

- Class 5, Oxidizing Substances and Organic Peroxides, if the Class 6 material is a fire risk substance
 - Class 8, Corrosive Substances, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids
- And are incompatible with food and food packaging in any quantity.

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN-No: 1710

Proper Shipping Name: TRICHLOROETHYLENE Class: 6.1

Packaging Group: III EMS No.: F-A, S-A

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air. UN-No: 1710

Proper Shipping Name: Trichloroethylene Class: 6.1

Packaging Group: III Label: Toxic

Packaging Instructions (passenger & cargo): 655 Packaging Instructions (cargo only): 663

1710

IMDG Marine Pollutant: no

UN proper shipping name TRICHLOROETHYLENE

Transport hazard class(es) 6.1

Hazchem Code 2Z

Packaging Method 3.8.6.1RT8

Packing Group III

EPG Number 6B7

IERG Number 37

SECTION 15 - REGULATORY INFORMATION

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule:

S6

AICS

All components of this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempted.

SECTION 16 - OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of PDS' knowledge. PDS makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

References:

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia. American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals, (GHS)

<https://www.nicnas.gov.au/chemical-information/factsheets/chemical-name/trichloroethylene>

REVISED DATE: January 2019 supersedes all previous SDS versions

REFERENCE: Revised for GHS compliance

Contact: pds@profdent.com.au

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