





SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NUMBER:	1635	COMPANY PHONE:	1-800-241-8180
PRODUCT NAME:	SUPERSOL	EMERGENCY TELEPHONE:	1-800-241-8180
PRODUCT DESCRIPTION:	Aerosol Contact & Circuit Board Cleaner	INFOTRAC:	1-800-535-5053
COMPANY INFORMATION:	PRO CHEM, INC. 1475 Bluegrass Lakes Parkway Alpharetta, GA 30004		

2. Hazards Identification

GHS CLASSIFICATION: Gases under pressure: Compressed gas Acute toxicity, inhalation: Category 4 Serious eye damage/eye irritation: Category 2B. OSHA defined hazards: Not classified.	SIGNAL WORD: WARNING	SYMBOL:		
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HAZARD STATEMENTS:

Contains gas under pressure; may explode if heated. Causes eye irritation. Harmful if inhaled.

PRECAUTIONARY STATEMENTS:

Prevention: Avoid breathing gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.

Storage: Protect from sunlight. Store in a well-ventilated place.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

ENVIRONMENTAL HAZARDS:

Hazardous to the aquatic environment, acute hazard: Category 3

Hazardous to the aquatic environment, long-term hazard: Category 3

HAZARDS NOT OTHERWISE SPECIFIED:

None known.

SUPPLEMENTAL INFORMATION:

None.

3. Composition / Information on Ingredients

Chemical Name	CAS	Concentration % by Weight
Trans-1,2-dichloroethylene	156-60-5	40-60
1,1,1,2-Tetrafluoroethane	811-97-2	20-40
Ethyl Nonafluorobutyl Ether	163702-05-4	2.5-10
Ethyl Nonafluoroisobutyl Ether	163702-06-5	2.5-10
Methyl Nonafluorobutyl Ether	163702-07-6	2.5-10
Methyl Nonafluoroisobutyl Ether	163702-08-7	2.5-10

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First Aid Measures

EMERGENCY OVERVIEW

GENERAL: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

EYES: Rinse with water. Get medical attention if irritation develops and persists.

SKIN: Wash off with soap and water. Get medical attention if irritation develops and persists.

INHALATION:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.

INGESTION:

Not likely, due to the form of the product.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:

Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire Fighting Measures

SUITABLE FIRE EXTINGUISHING MEDIA:

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

UNSUITABLE FIRE EXTINGUISHING MEDIA:

None known.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

During fire, gases hazardous to health may be formed.

SPECIFIC FIRE-FIGHTING METHODS:

In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use

unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Cool containers exposed to flames with water until well after the fire is out.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

GENERAL FIRE HAZARDS:

Contents under pressure. Pressurized container may explode when exposed to heat or flame.

6. Accidental Release Measures

PERSONAL PRECAUTIONS:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during cleanup. Avoid breathing gas. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

MATERIALS AND METHODS FOR CLEANUP:

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see Section 13 of the SDS.

ENVIRONMENTAL PRECAUTIONS:

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, watercourses or onto the ground.

7. Handling and Storage

SAFE HANDLING:

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

SAFE STORAGE & INCOMPATIBILITIES:

Level 1 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

COMPONENTS

COMPONENTS	TYPE	VALUE
Trans-1,2-dichloroethylene (CAS 156-60-5)	TWA	4240 mg/m ³ 1000 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

COMPONENTS

COMPONENTS	TYPE	VALUE
Methyl Nonafluorobutyl Ether (CAS 163702-07-6)	TWA	750 ppm
Methyl Nonafluoroisobutyl Ether (CAS 163702-08-7)	TWA	750 ppm

BIOLOGICAL LIMIT VALUE:

No biological exposure limits noted for the ingredient(s).

APPROPRIATE ENGINEERING CONTROLS:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:



Eye Protection: Wear safety glasses with side shields (or goggles).

Skin Protection: Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear suitable protective clothing.

Respiratory Protection: If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

General Hygiene Considerations: When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Physical State:	Gas.	Flammability (solid/gas):	Not available.
Form:	Aerosol. Compressed gas.	Flammability Limit-lower (%):	6.7% estimated.
Color:	Not available.	Flammability Limit-upper (%):	13.7% estimated.
Odor:	Not available.	Explosive Limit – lower (%):	Not available.
Odor Threshold:	Not available.	Explosive Limit – upper (%):	Not available.
pH:	Not available.	Vapor Pressure:	Not available.
Melting/Freezing Point:	Not available.	Vapor Density:	Not available.
Initial Boiling Point/Range:	Not available.	Relative Density:	Not available.
Partition Coeff (n-octanol/water):	Not available.	Solubility (water):	Not available.
Viscosity:	Not available.	Auto-Ignition Temperature:	744.8 °F (396 °C) estimated
Specific Gravity:	0.364 estimated.	Decomposition Temperature:	Not available.
Flash Point:	Not flammable.	Evaporation Rate:	Not available.
Explosive Properties:	Not explosive.	Oxidizing Properties:	Not oxidizing.

10. Stability & Reactivity Information

REACTIVITY:

The product is stable and non-reactive under normal conditions of use, storage and transport.

CHEMICAL STABILITY:

Material is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:

Hazardous polymerization does not occur.

INCOMPATIBLE MATERIALS:

Strong oxidizing agents.

CONDITIONS TO AVOID:

Heat. Contact with incompatible materials.

HAZARDOUS DECOMPOSITION PRODUCTS:

No hazardous decomposition products are known.

11. Toxicological Information

PRIMARY ROUTE OF ENTRY:

Eyes: Causes eye irritation.

Skin: No adverse effects due to skin contact are expected.

Inhalation: Harmful if inhaled.

Ingestion: Expected to be a low ingestion hazard.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:

Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort.

ACUTE TOXICITY:

Harmful if inhaled.

COMPONENTS	SPECIES	TEST RESULTS
Trans-1,2-dichloroethylene (CAS 156-60-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	24100 ppm

* Estimates for product may be based on additional component data not shown.

SKIN CORROSION/IRRITATION:

Prolonged skin contact may cause temporary irritation.

SERIOUS EYE DAMAGE/IRRITATION:

Causes eye irritation.

RESPIRATORY SENSITIZATION:

Not a respiratory sensitizer.

SKIN SENSITIZATION:

This product is not expected to cause skin sensitization.

GERM CELL MUTAGENICITY:

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

CARCINOGENICITY:

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity: Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens: Not listed.

REPRODUCTIVE TOXICITY:

This product is not expected to cause reproductive or developmental effects.

SPECIFIC TARGET ORGAN TOXICITY (single exposure):

Not classified.

SPECIFIC TARGET ORGAN TOXICITY (repeated exposures):

Not classified.

ASPIRATION HAZARD:

Not likely, due to the form of the product.

CHRONIC EFFECTS:

Prolonged inhalation may be harmful.

12. Ecological Information**ECOTOXICITY:**

Harmful to aquatic life with long lasting effects.

PERSISTENCE AND DEGRADABILITY:

No data is available on the degradability of this product.

BIOACCUMULATIVE POTENTIAL:**Partition coefficient n-octanol / water (log Kow):**

1,1,1,2-Tetrafluoroethane 1.274

Trans-1,2-dichloroethylene 2.06

MOBILITY IN SOIL:

No data available.

OTHER ADVERSE EFFECTS:

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Consideration**DISPOSAL INSTRUCTIONS:**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

LOCAL DISPOSAL REGULATIONS:

Dispose in accordance with all applicable regulations.

HAZARDOUS WASTE CODE:

The waste code should be assigned in discussion between the user, the producer and the waste-disposal company.

WASTE FROM RESIDUES/UNUSED PRODUCTS:

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

CONTAMINATED PACKAGING:

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste-handling site for recycling or disposal. Do not reuse empty containers.

14. Transportation Information**DOT: UN Number: UN1950**

UN Proper Shipping Name: Aerosols, nonflammable, (each not exceeding 1 L capacity)

Transport Hazard Class(es)

Class: 2.2

Subsidiary Risk: -

Label(s): 2.2



Packing Group: Not applicable.

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

Packaging Exceptions: 306

Packaging Nonbulk: None

Packaging Bulk: None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA: UN Number: UN1950

UN Proper Shipping Name: Aerosols, nonflammable

Transport Hazard Class(es)

Class: 2.2

Subsidiary Risk: -

Label(s): 2.2



Packing Group: Not applicable.

Environmental Hazards: No.

ERG Code: 2L

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

Other Information:

Passenger and Cargo Aircraft: Allowed with restrictions.

Cargo Aircraft Only: Allowed with restrictions.

Packaging Exceptions: LTD QTY

IMDG: UN NUMBER: UN1950

UN Proper Shipping Name: AEROSOLS

Transport Hazard Class(es)

Class: 2.2

Subsidiary Risk: -

Label(s): 2.2



Packing Group: Not applicable.

Environmental Hazards:

Marine pollutant: No.

EmS: Not available.

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

Packaging Exceptions: LTD QTY

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 and the IBC CODE:

Not applicable.

15. Regulatory Information

US FEDERAL REGULATIONS:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4):

Trans-1,2-dichloroethylene (CAS 156-60-5) Listed.

SARA 304 Emergency release notification: Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not regulated

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA):

Hazard categories: Immediate Hazard – Yes.

Delayed Hazard – No.

Fire Hazard – No.

Pressure Hazard – Yes.

Reactivity Hazard – No.

SARA 302 Extremely hazardous substance: Not listed.

SARA 311/312 Hazardous Chemical: No.

SARA 313 (TRI reporting): Not regulated.

OTHER FEDERAL REGULATIONS

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

US STATE REGULATIONS

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100): Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.(a)):

Trans-1,2-dichloroethylene (CAS 156-60-5)

US. Massachusetts RTK - Substance List

Trans-1,2-dichloroethylene (CAS 156-60-5)

US. New Jersey Worker and Community Right-to-Know Act: Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law:

Trans-1,2-dichloroethylene (CAS 156-60-5)

US. Rhode Island RTK

Trans-1,2-dichloroethylene (CAS 156-60-5)

US. California Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

INTERNATIONAL INVENTORIES:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

DISCLAIMER:

To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard, which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this SDS. The user is responsible for full compliance.