



SAFETY DATA SHEET

Pro360 Solvent

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

1. Identification

Product identifier

Product name	Pro360 Solvent
Product number	MCC-P360SOL
Synonyms; trade names	Pro360 Solvent, Prototype 22-66-9

Recommended use of the chemical and restrictions on use

Application	Cleaning agent.
Uses advised against	No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier	MICROCARE LLC
Manufacturer	MICROCARE LLC 595 John Downey Drive New Britain, CT 06051 United States of America CAGE: OATV9 Tel: + 1 800 638 0125, +1 860-827-0626 techsupport@microcare.com

Emergency telephone number

Emergency telephone	INFOTRAC 1-800-535-5053 (U.S.A. and CANADA) 1-352-323-3500 (from anywhere in the world)
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2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status	This Product is Hazardous under the OSHA Hazard Communication Standard.
Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H332
Human health	See Section 11 for additional information on health hazards. May be slightly irritating to eyes. Splashes in the eyes may cause redness and irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Physicochemical	Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers.

Label elements

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Hazard symbols



Signal word

Warning

Hazard statements

H332 Harmful if inhaled.

Precautionary statements

P261 Avoid breathing vapor/ spray.
 P271 Use only outdoors or in a well-ventilated area.
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a poison center/ doctor if you feel unwell.

Supplemental label information

EUH210 Safety data sheet available on request. RCH001a For use in industrial installations only.

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Methyl Nonafluorobutyl Ether CAS number: 163702-07-6	30-60%
Classification Not Classified	
Methyl Nonafluoroisobutyl Ether CAS number: 163702-08-7	30-60%
Classification Not Classified	
(Z)-1-chloro-2,3,3-trifluoropropene CAS number: 1263679-68-0	5-10%
Classification STOT SE 3 - H336 Not relevant.	
HEPTANE CAS number: 142-82-5	5-10%
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Not relevant.	

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(E)-1-chloro-2,3,3-trifluoropropene	1-5%
CAS number: 1263679-71-5	
Classification	
STOT SE 3 - H336	
Not relevant.	

The full text for all hazard statements is displayed in Section 16.

Composition comments TSCA: The ingredients of this product are on the TSCA Inventory. The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200

Composition

4. First-aid measures

Description of first aid measures

General information	If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.
Skin Contact	Rinse with water.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness.
Ingestion	No specific symptoms known.
Skin contact	No specific symptoms known.
Eye contact	No specific symptoms known. May be slightly irritating to eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

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Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. This product is toxic.

Hazardous combustion products Hazardous decomposition products: Incineration may cause the following products: Toxic and corrosive gases or vapors. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO₂). Carbon monoxide (CO). Hydrogen chloride (HCl).

Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of vapors and spray/mists. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Provide adequate ventilation. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

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Usage precautions	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.
<u>Conditions for safe storage, including any incompatibilities</u>	
Storage precautions	Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.
Storage class	Miscellaneous hazardous material storage.
<u>Specific end uses(s)</u>	
Specific end use(s)	The identified uses for this product are detailed in Section 1.
Reference to other sections.	Store away from incompatible materials (see Section 10).

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Methyl Nonafluorobutyl Ether

Long-term exposure limit (8-hour TWA): 750 ppm

Methyl Nonafluoroisobutyl Ether

Long-term exposure limit (8-hour TWA): 750 ppm

(Z)-1-chloro-2,3,3-trifluoropropene

No OSHA or ACGIH exposure limits have been established. Safe work practices should always be followed.

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Long-term exposure limit (8-hour TWA): ACGIH 400 ppm 1640 mg/m³

Short-term exposure limit (15-minute): ACGIH 500 ppm 2050 mg/m³

Long-term exposure limit (8-hour TWA): OSHA 500 ppm 2000 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.

OSHA = Occupational Safety and Health Administration.

Ingredient comments ACGIH = US Standard. WEL = Workplace Exposure Limits

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

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Hand protection	No specific hand protection recommended. Avoid contact with skin.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.
Environmental exposure controls	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear liquid.
Color	Water-white.
Odor	Slight. Ether.
Odor threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	56°C/132.8°F
Flash point	Does not flash. Penskey-Martins Closed Cup (ASTM D 93)
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Other flammability	No information available.
Vapor pressure	24.7 kPa @ 25°C Calculated.
Relative density	1.39
Bulk density	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.

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Volatility	100% Volatile.
Saturation concentration	No information available.
Critical temperature	No information available.

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapors.

11. Toxicological information

Information on toxicological effects

Other health effects	There is no evidence that the product can cause cancer.
<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	20,000.0
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Acute Tox. 4 - H332 Harmful if inhaled.
ATE inhalation (vapours mg/l)	11.0
<u>Skin corrosion/irritation</u>	
Animal data	Based on available data the classification criteria are not met.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
<u>Respiratory sensitization</u>	
Respiratory sensitization	Based on available data the classification criteria are not met.
<u>Skin sensitization</u>	
Skin sensitization	Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.

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IARC carcinogenicity	None of the ingredients are listed or exempt.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness.
Ingestion	No specific symptoms known.
Skin Contact	No specific symptoms known.
Eye contact	No specific symptoms known.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.
Medical Symptoms	Product has a defatting effect on skin. May cause allergic contact eczema. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Toxicological information on ingredients.

Methyl Nonafluorobutyl Ether

Other health effects	There is no evidence that the product can cause cancer.
<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
Species	Rat
ATE oral (mg/kg)	5,000.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ vapours mg/l)	1,000.0
Species	Rat
ATE inhalation (vapours mg/l)	1,000.0

Methyl Nonafluoroisobutyl Ether

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Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 5,000.0

Species Rat

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l) 1,000.0

Species Rat

ATE inhalation (vapours
mg/l) 1,000.0

(Z)-1-chloro-2,3,3-trifluoropropene

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 2,000.0

Species Rat

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l) 2,500.0

Species Rat

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Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l) 29.29

ATE inhalation (vapours
mg/l) 29.29

12. Ecological information

Ecotoxicity There are no data on the ecotoxicity of this product.

Ecological information on ingredients.

Methyl Nonafluorobutyl Ether

Ecotoxicity There are no data on the ecotoxicity of this product.

Methyl Nonafluoroisobutyl Ether

Ecotoxicity The product is not expected to be toxic to aquatic organisms.

Toxicity Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

Methyl Nonafluorobutyl Ether

Toxicity Not considered toxic to fish.

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Methyl Nonafluoroisobutyl Ether

Toxicity Not considered toxic to fish.

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Methyl Nonafluorobutyl Ether

Persistence and degradability No data available.

Methyl Nonafluoroisobutyl Ether

Persistence and degradability The product is not expected to be biodegradable.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Ecological information on ingredients.

Methyl Nonafluorobutyl Ether

Bio-Accumulative Potential No data available on bioaccumulation.

Methyl Nonafluoroisobutyl Ether

Bio-Accumulative Potential No data available on bioaccumulation.

(Z)-1-chloro-2,3,3-trifluoropropene

Partition coefficient log Pow: 1.9

Mobility in soil

Mobility No data available.

Ecological information on ingredients.

Methyl Nonafluorobutyl Ether

Mobility Not applicable.

Methyl Nonafluoroisobutyl Ether

Mobility Not applicable.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

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General information	The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.
Waste class	No information available.

14. Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).
<u>UN Number</u>	
UN No. (IMDG)	Not classified as dangerous for transport.
<u>UN proper shipping name</u>	
Proper shipping name (IMDG)	Not classified as dangerous for transport.
<u>Transport hazard class(es)</u>	
Transport Labels (International)	Not applicable., No information required.
Transport labels	No transport warning sign required.
<u>Packing group</u>	
Packing group (International)	No information required., Not applicable.
<u>Environmental hazards</u>	
Environmentally Hazardous Substance	No.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information required.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

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SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed:

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Massachusetts "Right To Know" List

The following ingredients are listed:

HEPTANE

Rhode Island "Right To Know" List

The following ingredients are listed:

HEPTANE

Minnesota "Right To Know" List

The following ingredients are listed:

HEPTANE

New Jersey "Right To Know" List

The following ingredients are listed:

HEPTANE

Pennsylvania "Right To Know" List

The following ingredients are listed:

HEPTANE

Inventories

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US - TSCA

Present.

US - TSCA 12(b) Export Notification

The following ingredients are listed:

Methyl Nonafluorobutyl Ether

Methyl Nonafluoroisobutyl Ether

16. Other information

Abbreviations and acronyms used in the safety data sheet	<p>TDG: The transport of dangerous goods act</p> <p>IATA: International air transport association.</p> <p>ICAO: Technical instructions for the safe transport of dangerous goods by air.</p> <p>IMDG: International maritime dangerous goods.</p> <p>CAS: Chemical abstracts service.</p> <p>ATE: Acute toxicity estimate.</p> <p>LC₅₀: Lethal concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal dose to 50% of a test population (median lethal dose).</p> <p>EC₅₀: 50% of maximal effective concentration.</p> <p>PBT: Persistent, bioaccumulative and toxic substance.</p> <p>vPvB: Very persistent and very bioaccumulative.</p>
Classification abbreviations and acronyms	<p>Acute Tox. = Acute toxicity</p> <p>Aquatic Chronic = Hazardous to the aquatic environment (chronic)</p>
Training advice	Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	9/13/2022
Revision	80
Supersedes date	9/1/2022
SDS No.	BULK - PRO360SOL
SDS status	Approved.
Hazard statements in full	<p>H225 Highly flammable liquid and vapor.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H315 Causes skin irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H336 May cause drowsiness or dizziness.</p>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.