

SAFETY DATA SHEET.

Issuing date 22-Jun-2015

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Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name PC-100 POWER CLEAN

Recommended use of the chemical and restrictions on use

Product Type

Non-flammable aerosol

Synonyms

None

Supplier's details

Recommended Use

Mold Cleaner.

Uses advised against

No information available

Manufacturer:

Nanoplas Inc.
1901 Godfrey Ave. SW
Grand Rapids, MI 49509

Emergency telephone number

Chemical Emergency Phone Number 616-452-3707

Company Emergency Phone Number 616-452-3707

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

• Toxic to aquatic life with long lasting effects

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
TRICHLOROETHYLENE	79-01-6	80-90
ISOPROPYL ALCOHOL	67-63-0	1-10
CARBON DIOXIDE	124-38-9	1-10
1,2-BUTYLENE OXIDE	106-88-7	0.1-1

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Avoid contact with eyes, skin, and clothing. Avoid breathing, vapors, mist, or gas.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Artificial respiration and/or oxygen may be necessary. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Main Symptoms Causes skin irritation. Causes eye irritation. May cause respiratory irritation. May be harmful if swallowed.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with the skin and the eyes. Absorb with sand ,clay, or other suitable material. Hard surfaces may be mopped with water. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Avoid dust formation. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Should not be released into the environment.

Methods and materials for containment and cleaning up

Methods for Containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Prevent product from entering drains.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

Incompatible products Strong acids, alkalis, or oxidizing agents.

Aerosol Level 1

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
TRICHLOROETHYLENE 79-01-6	STEL: 25 ppm TWA: 10 ppm	TWA: 100 ppm (vacated) TWA: 50 ppm (vacated) TWA: 270 mg/m ³ (vacated) STEL: 200 ppm (vacated) STEL: 1080 mg/m ³ Ceiling: 200 ppm	IDLH: 1000 ppm
ISOPROPYL ALCOHOL 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
CARBON DIOXIDE 124-38-9	STEL: 30000 ppm TWA: 5000 ppm	TWA: 5000 ppm TWA: 9000 mg/m ³ (vacated) TWA: 10000 ppm (vacated) TWA: 18000 mg/m ³ (vacated) STEL: 30000 ppm (vacated) STEL: 54000 mg/m ³	IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m ³ STEL: 30000 ppm STEL: 54000 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Exposure controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Safety glasses with side-shields.
- Skin and body protection** Chemical resistant apron. Protective gloves.
- Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state	Aerosol	Odor	Solvent
Appearance	Clear	Odor Threshold	No information available
Color	clear		
Property	Values	Remarks • Methods	
pH	No information available		
Melting/freezing point	No information available		
Boiling point/boiling range	No information available		
Flash Point	12 °C / 54 °F	Closed cup (based on components)	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limits in Air upper flammability limit	No information available		

Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.362	
Water solubility	Practically insoluble	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	Not applicable
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	

Other information

VOC Content(%) 95.43

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong acids, alkalis, or oxidizing agents.

Hazardous Decomposition Products

Carbon oxides. Fumes. Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Vapors may irritate throat and respiratory system. May cause drowsiness and dizziness based on components. May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Eye contact	Irritating to eyes. Avoid contact with eyes.
Skin contact	Irritating to skin. Repeated exposure may cause skin dryness or cracking. Prolonged skin contact may defat the skin and produce dermatitis. Avoid contact with skin.
Ingestion	May be harmful or fatal if swallowed. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
TRICHLOROETHYLENE 79-01-6	5400 - 7200 mg/kg (Rat)	= 29000 mg/kg (Rabbit)	= 26 mg/L (Rat) 4 h
ISOPROPYL ALCOHOL 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
1,2-BUTYLENE OXIDE 106-88-7	-	= 1757 mg/kg (Rabbit)	= 6300 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms Inhalation may cause nose, throat , and respiratory tract irritation. Irritation to skin and eyes. May be harmful if swallowed.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Eye damage/irritation Irritating to eyes.
Irritation Irritating to eyes, respiratory system and skin.
Sensitization None known.
Germ Cell Mutagenicity Suspected of causing genetic defects.
Carcinogenicity The table below indicates whether each agency has evaluated a listed ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
TRICHLOROETHYLENE 79-01-6	A2	Group 1	Reasonably Anticipated	-
1,2-BUTYLENE OXIDE 106-88-7	-	Group 2B	-	-

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP: (National Toxicity Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive toxicity This product does not contain any known or suspected reproductive hazards.
Specific target organ systemic toxicity (single exposure) May cause respiratory irritation. May cause drowsiness and dizziness.
Specific target organ systemic toxicity (repeated exposure) None under normal use conditions.
Chronic toxicity Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Prolonged skin contact may defat the skin and produce dermatitis.
Target Organ Effects Central nervous system, Central Vascular System (CVS), Eyes, Heart, Kidney, Liver, Respiratory system, Skin.
Neurological effects Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.
Aspiration hazard May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity
 The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
TRICHLOROETHYLENE 79-01-6	450 mg/L EC50 Desmodesmus subspicatus 96h 175 mg/L EC50 Pseudokirchneriella subcapitata 96h	31.4 - 71.8 mg/L LC50 Pimephales promelas 96h flow-through 39 - 54 mg/L LC50 Lepomis macrochirus 96h static	-	2.2 mg/L EC50 Daphnia magna 48h

ISOPROPYL ALCOHOL 67-63-0	1000 mg/L EC50 Desmodesmus subspicatus 96h 1000 mg/L EC50 Desmodesmus subspicatus 72h	11130 mg/L LC50 Pimephales promelas 96h static 9640 mg/L LC50 Pimephales promelas 96h flow-through 1400000 µg/L LC50 Lepomis macrochirus 96h	-	13299 mg/L EC50 Daphnia magna 48h
1,2-BUTYLENE OXIDE 106-88-7	500 mg/L EC50 Desmodesmus subspicatus 72h	-	-	69.8 mg/L EC50 Daphnia magna 48h

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
TRICHLOROETHYLENE 79-01-6	2.29
ISOPROPYL ALCOHOL 67-63-0	0.05
1,2-BUTYLENE OXIDE 106-88-7	0.416

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground

CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY

IATA

UN1950, AEROSOLS, NON-FLAMMABLE, CONTAINING SUBSTANCES IN DIVISION 6.1, PACKING GROUP III, 2.2 (6.1), LTD. QTY

IMDG

UN1950, AEROSOLS, 2.2 (6.1), LTD. QTY.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS

TRICHLOROETHYLENE	X	X	X	X	X	X	X	X
ISOPROPYL ALCOHOL	X	X	X	X	X	X	X	X
CARBON DIOXIDE	X	X	X	X	X	X	X	X
1,2-BUTYLENE OXIDE	X	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
CHINA - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
TRICHLOROETHYLENE - 79-01-6	79-01-6	80-90	0.1
ISOPROPYL ALCOHOL - 67-63-0	67-63-0	1-10	1.0
1,2-BUTYLENE OXIDE - 106-88-7	106-88-7	0.1-1	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	no

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
TRICHLOROETHYLENE 79-01-6	100 lb	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
TRICHLOROETHYLENE 79-01-6	100 lb 1 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
1,2-BUTYLENE OXIDE 106-88-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65

TRICHLOROETHYLENE - 79-01-6	Carcinogen Developmental Male Reproductive
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U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
TRICHLOROETHYLENE 79-01-6	X	X	X
ISOPROPYL ALCOHOL 67-63-0	X	X	X
CARBON DIOXIDE 124-38-9	X	X	X
1,2-BUTYLENE OXIDE 106-88-7	X	X	X

EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 1	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 1	Physical Hazard 1	Personal protection B

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No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet