

# MSDS - Material Safety Data Sheet

**Product Name: Genova ARCTICWELD® P**

MSDS No.: GE379525

**Part Numbers Covered:**

14415  
14420

**1. Basic Information:**

**Manufacturer:** Genova Products  
**Address:** 7034 East Court Street  
**City, ST Zip:** Davison, MI 48423  
**Emergency Contact:** INFOTRAC  
**Emergency Telephone Number:** 800-535-5053  
**Contact:** Information Telephone Number  
**Information Telephone Number:** 800-521-7488



**Last Update:** 01/08/2007      **Expiration Date:**

**Chemical State:**     Liquid       Gas       Solid

**Chemical Type:**     Pure       Mixture

2	Health
4	Flammability
0	Reactivity
G	Pers. Protection

**2. Ingredients:**

Trade Secret

CAS No.	Chemical Name	% Range	EHS		IARC		SARA		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB	Z	313				
108-94-1	CYCLOHEXANONE	5 - 15							25 PPM	20 PPM	NI
112945-52-5	FUMED SILICA	1 - 5							5 mg/m3	3 mg/m3	NI
78-93-3	METHYL ETHYL KETONE	40 - 50							200 PPM	200 PPM	NI
9002-86-2	PVC RESIN	10 - 20	X	X					15 mg/m3	10 mg/m3	NI
109-99-9	TETRAHYDROFURAN	25 - 35							200 PPM	50 PPM	NI

**3. Hazardous Identification:**

**Hazard Category:**

Acute       Chronic       Fire       Pressure       Reactive

**Hazardous Identification Information:**

HAZARDS OVERVIEW:

Clear to slightly cloudy, slightly viscous liquid with a distinct and penetrating odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mists may cause respiratory irritation and central nervous system effects. Ingestion may cause irritation, nausea, vomiting, diarrhea and kidney and liver disorders. May be fatal if swallowed. Aspiration hazard. Symptoms may be delayed.

# MSDS - Material Safety Data Sheet

**Product Name: Genova ARCTICWELD® P**

MSDS No.: GE379525

## 4. First Aid Measures:

### Route(s) of Entry:

EYES: Liquid causes severe irritation. Vapors cause slight to moderate irritation.

SKIN: Liquid or vapors may cause severe irritation.

INHALATION: May cause nose and throat irritation, headache, nausea, vomiting, drowsiness and incoordination.

INGESTION: Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney and liver disorders. May be fatal if swallowed.

TARGET ORGANS: Eyes, Skin, Lungs, Kidney, Liver, Central Nervous System.

### Health Hazards (Acute and Chronic):

#### ACUTE:

Severe skin irritant. Fast skin penetrant. Not expected to be a sensitizer. Eye irritant. Inhalation hazard. Overexposure may cause coughing, shortness of breath, dizziness, vomiting, central nervous system depression, intoxication, and collapse. Ingestion hazard. May produce symptoms of nervous system depression including headache, dizziness, nausea, loss of sense of balance, drowsiness, and visual disturbances.

#### CHRONIC:

Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause defatting and dermatitis. May cause liver and kidney damage. May cause reproductive and fetal effects May cause lung damage. Narcotic in high concentrations.

### Signs and Symptoms:

See HEALTH HAZARDS above.

### Medical Conditions Generally Aggravated by Exposure:

#### AGGRAVATION OF EXISTING CONDITIONS:

Persons with pre-existing skin disorders or eye problems or impaired liver or kidney function may be more susceptible to the effects of the substance.

### Emergency and First Aid Procedures:

FOR EMERGENCY FIRST AID HELP CALL 1-303-623-5716 COLLECT.

#### SKIN CONTACT:

Immediately wash skin with soap and water while removing contaminated clothing and shoes. Remove dried cement with HARVEY'S POWER SCRUB HAND CLEANER or baby oil. Launder clothing before reuse. Seek medical attention if irritation persists.

#### EYES:

Liquid: Immediately flush with plenty of water for 5 minutes. Remove contacts if present and continue flushing with water while holding eyelids open with thumb and index finger for 15 minutes. Seek medical attention if irritation develops or persists. Vapors: If vapors cause irritation, move to fresh air and flush eyes as above. Seek medical attention if irritation develops or persists.

#### INHALATION:

Move to fresh air. Give oxygen if breathing is difficult. Give artificial respiration if required. Call a physician or poison control center (1-303-623-576 collect) immediately.

#### INGESTION:

DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center (1-303-623-5716 Collect), or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

### Other Health Warnings:

NI

# MSDS - Material Safety Data Sheet

**Product Name: Genova ARCTICWELD® P**

MSDS No.: GE379525

## 5. Fire Fighting Measures:

Flash Point: 0 - 6 °F

Lower Explosive Limit: 1.1 %by vol.

Upper Explosive Limit: 11.8 %by vol

F.P. Method: TCC

**Fire Extinguishing Media:** Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.

### Special Fire Fighting Procedures:

Firefighters should wear positive pressure self contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

### Unusual Fire and Explosion:

Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains Tetrahydrofuran that may form explosive organic peroxides when exposed to air or light or with age. Combustion will produce toxic and irritating vapors including carbon monoxide and carbon dioxide.

## 6. Accidental Release Measures:

### Steps to be Taken in Case Material is Released or Spilled:

Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Prevent liquid from entering watercourses, natural waterways, drainage collection areas or sewers.

Personnel cleaning up the spill should wear appropriate Personal Protective Equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put spent absorbent material in covered, labeled metal containers. See Section 13 for disposal information.

Report releases to proper authorities as required.

## 7. Handling and Storage:

### Precautions to be Taken:

#### HANDLING:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in use or storage areas. Keep containers closed when not in use.

#### STORAGE:

Store in a cool, dry, well ventilated area away from incompatible materials. Keep containers closed when not in use.

### Other Precautions:

"Empty" containers can retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

Prevent prolonged or repeated breathing of vapors released during application process. Reports have associated repeated and prolonged overexposure to solvents with permanent brain damage and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

## 8. Exposure Controls/Personal Protection:

### Ventilation Requirements:

GENERAL MECHANICAL: Exhaust ventilation capable of maintaining emissions at the point of use below OSHA PEL.

LOCAL EXHAUST: Open doors & windows. If used in an enclosed area, use exhaust fans.

Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of vapors are not exposed to electrical fixtures or hot surfaces.

### Personal Protective Equipment:

# MSDS - Material Safety Data Sheet

**Product Name: Genova ARCTICWELD® P**

**MSDS No.: GE379525**

**RESPIRATORY PROTECTION:**

For operations where the exposure limits may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on the contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice.

For firefighting, use self-contained breathing apparatus.

**EYE PROTECTION:**

Safety glasses with side shields or safety goggles.

**SKIN PROTECTION:**

Rubber gloves are adequate for normal use of the product. For long exposures to the substance, chemical resistant gloves may be required to avoid prolonged exposure.

**OTHER PROTECTION:**

An eye wash and safety shower should be available in the work area.

## 9. Physical and Chemical Properties:

**Boiling Point:** 155 °F

**Melting Point:** NA

**Evaporation Rate (Butyl Acetate = 1):** 3.7 - 8.0

**Vapor Pressure (mm Hg.):** ~ 157

**Specific Gravity (H2O = 1):** 0.93400

**Vapor Density (AIR = 1):** ~ 2.5

**Solubility In Water:** Negligible

**Appearance and Odor:** Clear to slightly cloudy, slightly viscous liquid with Ether-like odor

**Other Information:** Specific Gravity = ~.934

## 10. Stability and Reactivity:

**Stability:**

Stable.

**Incompatibility (Materials to Avoid):**

Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic and rubber compounds.

**Decomposition/By Products:**

Burning can produce carbon monoxide, carbon dioxide, water, cyanide, hydrogen cyanide, and vapors of chemicals listed in Section II.

**Hazardous Polymerization:**

Will not occur.

## 11. Toxicological Information:

# MSDS - Material Safety Data Sheet

**Product Name: Genova ARCTICWELD® P**

**MSDS No.: GE379525**

THIS PRODUCT IS TOXIC BY INGESTION. MAY CAUSE NARCOSIS, GASTRIC INJURY OR DEATH.

CHRONIC TOXICITY: Prolonged or repeated overexposure can cause dermatitis and damage to the kidney, liver, lungs and central nervous system.

## TOXICITY DATA:

### Cyclohexanone:

Oral rat LD50: 1,620 mg/kg.  
Inhalation rat LC50: 8,000 ppm/4 hours  
Skin rabbit: 1 mL/kg

### Methyl Ethyl Ketone:

Oral rat LD50: 2,737 mg/kg.  
Inhalation rat LC50: 23,500 mg/m<sup>3</sup>/8 hours  
Skin rabbit: 6480 mg/kg

### Tetrahydrofuran:

Oral rat LD50: 1,650 mg/kg  
Inhalation rat LC50: 21,000 ppm/ 3 hours

### PVC Resin:

Oral rat TDLO: 210g/kg/30W-C: Equivocal tumorigenic agent  
Inhalation mouse LC50: 140mg/m<sup>3</sup>/10m  
Implant rat TDLO: 75 mg/kg: Equivocal tumorigenic agent

## SENSITIZATION:

None of the components are known to cause sensitization.

## CARCINOGENICITY:

None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The NTP has reported that exposure of mice and rats to Tetrahydrofuran vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for Tetrahydrofuran. ACGIH has classified Cyclohexanone and Tetrahydrofuran as "A3", Confirmed Animal Carcinogen with Unknown Relevance to Humans.

## MUTAGENICITY:

Cyclohexanone has been positive in bacterial and mammalian assays. Methyl Ethyl Ketone and Tetrahydrofuran are generally thought not to be mutagenic.

## REPRODUCTIVE TOXICITY:

Methyl Ethyl Ketone and Cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

## 12. Ecological Information:

THIS PRODUCT IS NOT EXPECTED TO BE TOXIC TO AQUATIC ORGANISMS.

Cyclohexanone: 96 hour LC50 values for fish is over 100mg/L.

Methyl Ethyl Ketone: 96 hour LC50 values for fish is over 100mg/L.

Tetrahydrofuran: 96 hour LC50 for fathead minnow: 2160 mg/L.

## VOC Information:

This product emits VOC's (Volatile Organic Compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.

VOC Content (as manufactured): 783 grams/liter

## 13. Disposal Considerations:

# MSDS - Material Safety Data Sheet

**Product Name: Genova ARCTICWELD® P**

**MSDS No.: GE379525**

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

RCRA Hazardous Waste Number: U002, U057, U159, U213

EPA Hazardous Waste ID Number: D001, D035, F003, F005

EPA Hazardous Waste Class: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

## 14. Transport Information:

DOT (DEPARTMENT OF TRANSPORTATION) U.S.:

Proper Shipping Name: Less than 1 Liter = Consumer Commodity

Hazard Class/Packing Group: Less than 1 Liter = ORM-D

UN/NA Number: Less than 1 Liter = None

Hazard Labels: Less than 1 Liter = None

INTERNATIONAL MARITIME DANGEROUS GOODS:

Proper Shipping Name: Flammable Liquid, N.O.S. Limited Quantity

Hazard Class/Packing Group: 3, II

UN Number: UN1993

Label: None (Limited Quantities are excepted from labeling)

2004 NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: 128

## 15. Regulatory Information:

SARA, Section 311 / 312, Hazard Category:

Acute Health

Chronic Health

Flammable

SARA, Section 302, Extremely Hazardous Substances:

This product does not contain chemical regulated under SARA Section 302.

SARA, Section 313, Toxic Chemical:

This product does not contains any chemical subject to SARA Title III, Section 313 reporting requirements:

CERCLA 103, Reportable Quantity:

Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center; The RQ for the product, based on the RQ for Methyl Ethyl Ketone (100% maximum) of 5,000 lbs. is 5,000 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

CALIFORNIA PROPOSITON 65:

This product contains trace amounts of chemicals known to the State of California to cause cancer. Under normal use conditions, exposure to these chemicals at levels above the State of California "No Significant Risk Level" (NSRL) are unlikely.

The William H. Harvey Company strongly recommends and encourages the proper selection and use of Personal Protective Equipment and engineered ventilation noted in Section VIII of this MSDS.

TSCA INVENTORY:

All of the components of this product are listed on the TSCA inventory.

CANADIAN WHIMS CLASSIFICATION:

Class B, Division 2; Class D, Division 2, Subdivision A.

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.

# MSDS - Material Safety Data Sheet

**Product Name: Genova ARCTICWELD® P**

MSDS No.: GE379525

## 16. Other Information:

KEEP AWAY FROM HEAT SPARK AND FLAMES AT ALL TIMES.

STORE IN A COOL DRY PLACE.

### ABBREVIATIONS:

~ = Approximately

< = Less Than

> = Greater Than

ACGIH = American Conference of Governmental Industrial Hygienists

AIHA = American Industrial Hygiene Association

C = Degrees Celcius

CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act

Deg = Degrees

EPA = Environmental Protection Agency

F = Degrees Farenheit

HMIS = Hazardous Materials Information System

IARC = International Agency for Research on Cancer

NA = Not Applicable

NDA = No Data Available

NE = Not Established

NFPA = National Fire Protection Association

NI = Not Indicated

NIOSH = National Institute of Occupational Safety and Health

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration

SARA = Superfund Amendment and Reauthorization Act

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