MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet (MSDS) complies with the requirements of OSHA's Hazard Communication Standard.

For a MSDS in ANSI Z400.1 format, please call 888-838-0615 or visit the Airgas Web site at: *www.airgas.com*

ANTI-SPATTER AND NOZZLE SHIELD AEROSOL SPRAY

RADNOR WELDING PRODUCTS

Emergency Phone Number: 800-949-9737

Date: November 9, 2005

Product Information Number: 888-838-0615

SECTION 1 – PRODUCT IDENTIFICATION

Product Name/Class	Anti-Spatter and Nozzle Shield Aerosol Spray; 1620; 1620A		
Product Number	004001	Part Number	64000100
Manufacturer	Radnor Welding Products 259 N. Radnor-Chester Road Suite 100 Radnor, PA 19087-5283		

SECTION 2 – HAZARDOUS INGREDIENTS

Ingredient	CAS Number	Percent	Exposure Limits	
			TLV	PEL
*Methylene Chloride	75-09-2	73-84	50ppm (8 hr TWA)	25ppm (8 hr TWA)
Carbon Dioxide	124-38-9	17	5000ppm	5000ppm

SECTION 3 – PHYSICAL CHARACTERISTICS

Boiling Point: 104°F	Specific Gravity (H_2O = 1): 1.32	Solubility in Water : 1.3 % by weight.
Vapor Pressure (mm Hg): 390	Freezing Point: -97°C (-142°F)	%Volatile: 100
Vapor Density (Air = 1): 2.9	Evaporation Rate (Butyl Acetate=1): 14.5	Appearance and Odor: Clear, colorless liquid with a chloroform-like odor.

SECTION 4 – FIRE and EXPLOSION HAZARD DATA

Flash Point (Method Used): None to boiling	Flammable Limits:	LEL: N/A
		UEL: N/A

Extinguishing Media: Carbon dioxide, dry chemical or foam.

Special Fire Fighting Procedures: Pressure-demand, self-contained protection should be provided for protection. Storage containers exposed to fire should be kept cool with water.

Unusual Fire and Explosion Hazards: At high temperatures, over-pressurization of containers can result.

SECTION 5 – REACTIVITY DATA

Stability	Unstable ☐	Conditions to Avoid: Avoid high pressure in aluminum systems. Open flames & electrical arcs.
	Stable ☒	

Incompatibility (Materials to Avoid): Avoid contact with oxygen, nitrogen, peroxide, oxidizers and reactive metals (i.e. aluminum, potassium, sodium, etc.)

Hazardous Decomposition or Byproducts: Combustion prior to evaporation of methylene chloride may yield carbon monoxide, carbon dioxide, hydrogen chloride and traces of phosgene.

Hazardous Polymerization	May Occur ☐	Conditions to Avoid: N/A
	Will Not Occur ☒	

SECTION 6 – HEALTH HAZARD DATA

Routes of Entry: ☒ Inhalation ☒ Skin ☒ Ingestion

Health Hazards (Acute and Chronic): INHALATION: In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death. Minimal anesthetic or narcotic effects may be seen in 500-1000 ppm range. Progressively higher levels over 1000 ppm can cause dizziness, drunkenness, concentrations as low as 10000 ppm can cause unconsciousness and death. These high levels may also cause cardiac arrythmias. Excessive exposure may cause irritation to upper respiratory tract. Excessive exposure may cause carboxyhemoglobinemia.

Carcinogenicity: ** NTP: Yes IARC: Yes OSHA Regulated: Yes

**Comments: An evaluation of the metabolism of methylene chloride in mice indicates that tumor formation in mice is the result of their metabolism by a particular pathway at exposure concentrations greater than 500 ppm. This pathway does not play a significant role in metabolism by mice at exposure levels less than 500 ppm. The metabolic pathway associated with carcinogenicity is less active in rats, and appears to play a negligible role in metabolism by hamsters and humans. Inhalation of methylene chloride produced limited evidence of liver damage in laboratory animals. The relevance of these findings to humans is uncertain. Pre-existing liver and blood disorders may be aggravated by exposure to this material. Persons with pre-existing heart disorders may be more susceptible to irregular heartbeats (arrhythmias) if exposed to high concentrations of this material. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (painters' syndrome). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

***Mutagenicity (effects on genetic material): Negative or equivocal results have been obtained in mutagenicity tests using mammalian cells or animals. This is consistent with the lack of interaction with DNA in rats and hamsters. Although results of Ames bacterial tests have generally been positive, overall the data suggest that genotoxic potential does not appear to be a significant factor in the toxicity of methylene chloride.

Signs and Symptoms of Exposure: Light-headedness & nausea. Irritating to the eyes and the skin.

Medical Conditions Generally Aggravated by Exposure: Prolonged contact with high concentrations can lead to serious kidney and liver damage.

Emergency and First Aid Procedures: Eyes – flush with water for 15 minutes. Skin – wash area with soap & water. Ingestion – drink water, DO NOT INDUCE VOMITING. Inhalation – remove to fresh air. If breathing has stopped, start CPR.

HMIS Rating	HMIS Scale	NFPA Rating	NFPA Scale
Health = 3	4 = Severe Hazard	Health = 2	4 = Severe Hazard
Flammability = 1	3 = Serious Hazard	Flammability = 1	3 = Serious Hazard
Reactivity = 0	2 = Moderate Hazard	Reactivity = 0	2 = Moderate Hazard
	1 = Slight Hazard	Other = None	1 = Slight Hazard
	0 = Minimal Hazard		0 = Minimal Hazard

SECTION 7 – PRECAUTIONS for SAFE HANDLING and USE

Steps to Be Taken in Case Material Is Released or Spilled: Spills should be soaked up with absorbent. Area should then be flushed with water. All rinsate should be containerized & labeled. Spills on areas that are not on pavement can be handled by removing the affected soils.

Waste Disposal Method: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations.

Precautions to Be Taken In Handling and Storing: Use and store this material in cool, dry, well ventilated areas away from heat and all sources of ignition. Keep containers closed. Keep away from incompatible materials (Section 5). Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276. The use of respiratory protection is advised when concentrations exceed the established exposure limits. Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practices. Empty containers retain residue and can be dangerous. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. **Do not spray into electric arc or through open flame. Wait 5 to 10 seconds after spraying before welding.** Evaporation of methylene chloride occurs almost immediately if the correct amount of spray is used. **Do not breathe welding fumes.**

SECTION 8 – CONTROL MEASURES

Respiratory Protection *(Specify Type):* None, during normal use.

Ventilation	Local Exhaust: Sufficient to maintain TLV.	Special: N/A
	Mechanical: General	Other: N/A

Protective Gloves: Polyfluorinated polyethylene suggested.	Eye Protection: Face shield and goggles should be worn.

Other Protective Clothing or Equipment: Leather welding gloves while welding.

Work/Hygienic Practices: Avoid getting this product on you or in you. Wash thoroughly after handling this product. Do not eat, drink, smoke, apply cosmetics or contact lenses while handling this product. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately. **Read and comply with the requirements of 29 CFR §1910.1052.**

OTHER INFORMATION REQUIRED BY STATE OR FEDERAL LAW

California Proposition 65 Information: Methylene Chloride (the main component of this product) is on the California Proposition 65 lists. WARNING! This product contains a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm).

New Jersey Right-To-Know Information: 5 most predominant ingredients/hazardous and non-hazardous)
1. Methylene Chloride CAS #75-09-2; 2. Carbon Dioxide CAS #124-38-9;
3. Soya Lecithin CAS #8002-43-5

SARA Title III Notification Information: All chemical compounds marked with an asterisk (*) are toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Super Fund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Disclaimer of Expressed and Implied Warranties: The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use.