

MATERIAL SAFETY DATA SHEET FOR RADNOR® 64000209 AEROSOL

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : RADNOR® DEVELOPER STANDARD GRADE
PRODUCT USE : INSPECTION DEVELOPER
ITEM CODE(S) : 64000209
ADDRESS : RADNOR PRODUCTS
259 N. RADNOR-CHESTER ROAD SUITE 100
RADNOR, PA 19087-5283
EMERGENCY TELEPHONE : 866-734-3438
PREPARATION DATE : DECEMBER 01, 2007
OSHA REGULATORY STATUS : REGULATED

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Table with 8 columns: ID, HAZARDOUS INGREDIENTS, CAS, OSHA PEL, ACGIH TLV, LD50 SPECIES/ROUTE, LC50 SPECIES/ROUTE, %WT. Rows include METHYLENE CHLORIDE, LIQDEFIED PETROLEUM GAS, CALCIUM CARBONATE, METHYL ALCOHOL, and BENTONITE CLAY.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
CONTENTS UNDER PRESSURE. STORE BELOW 120°F(49°C), OUT OF SUNLIGHT AND AWAY FROM HEAT SOURCES. DO NOT PUNCTUE OR INCINERATE. AVOID CONTACT WITH SKIN AND EYES. VAPOR HARMFUL. HARMFUL OR FATAL IF SWALLOWED. EYE AND SKIN IRRITANT. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

EYE: Liquid or vapors may cause redness, burning, tearing, swelling and/or pain.
SKIN: Frequent or prolonged contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).
INGESTION: Due to being an aerosol, product does not lend itself to ingestion. Should ingestion occur, it may cause irritation to membranes of the mouth, throat and gastrointestinal tract, resulting in vomiting and/or cramps.
INHALATION: Prolonged or repeated overexposure is anesthetic. May cause irritation of the respiratory tract, or acute nervous system depression characterized by headache, dizziness, staggering gait, or confusion.
EFFECTS OF ACUTE EXPOSURE: N/Av
EFFECTS OF CHRONIC EXPOSURE: N/ Av
OTHER IMPORTANT HAZARDS: N/Av



SECTION 4. FIRST AID MEASURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist or if unconscious.
INGESTION: Unlikely due to being in aerosol form. Should actual ingestion occur, do not induce vomiting! Drink a glass of water or milk to dilute. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
EYE CONTACT: Immediately flush with plenty of clear water for at least 15 minutes. Make sure to flush under the eyelids. Consult a physician for definitive treatment.
SKIN CONTACT: Remove with soap and water. Continue flushing with water for several minutes. Use skin cream to counter resulting dryness. Consult a physician if irritation continues or if large skin area is affected.

SECTION 5. FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY: Heat, sparks, flame, red hot metal.

MEANS OF EXTINCTION: For warehouse and storage conditions, use NFPA Class B extinguishers (CO₂, dry chemical or universal aqueous film forming foam).

SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool fire exposed aerosol containers for containers can rupture violently from heat developed pressure.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Contents under pressure. In addition, when liquid or vapor comes into contact with flames or red hot metal, products of combustion will be created. Firemen should wear self-contained breathing apparatus.

FLASH POINT / DETERMINATION: N/Av

UPPER FLAMMABLE LIMIT: N/Av

LOWER FLAMMABLE LIMIT: N/Av

AUTO-IGNITION TEMPERATURE: 1,184°F (640°C)

HAZARDOUS COMBUSTION PRODUCTS: N/Av

EXPLOSION DATA - SENSITIVITY TO MECHANICAL IMPACT: N/Av

EXPLOSION DATA - SENSITIVITY TO STATIC DISCHARGE: N/Av

SECTION 6. ACCIDENTAL RELEASE MEASURES

LEAK / SPILL RESPONSE: Product is an aerosol, therefore spills and leaks are unlikely. In case of rupture, released content should be contained as any other solvent spill. Spills from aerosol cans are unlikely and are generally of small volume. Large spills are therefore not normally considered a problem. In case of actual rupture, avoid breathing vapors and ventilate area well. Remove all sources of ignition and use non-sparking equipment. Soak up material with inert absorbent and place in safety containers for proper disposal.

SPECIAL INSTRUCTIONS: Aerosol products represent a limited hazard and will not spill or leak unless ruptured. In case of rupture contents are generally evacuated from the can rapidly. Area should be ventilated immediately and continuous ventilation provided until all fumes and vapors have been removed. Aerosol cans should never be incinerated or burned. See Section 13 for disposal considerations.

SECTION 7. HANDLING AND STORAGE

HANDLING PROCEDURES / EQUIPMENT: Avoid prolonged or repeated skin contact. Avoid breathing vapors.

STORAGE REQUIREMENTS: Store in area below 120°F (49°C). Do not incinerate (burn) containers. Assure can is in a secure place to prevent knocking over and accidental rupture. Always replace overcap when not in use. For store of pallet quantities, compliance with ANSI/NFPA 30B is recommended.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE PROTECTION: Safety glasses with side shields are recommended as a minimum for any type of industrial chemical handling. Where eye contact could occur, chemical splash proof goggles are recommended.

SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or repeated contact could occur, use protective clothing such as Sol-Vex® gloves or other clothing impervious to the ingredient listed in Section 2.

ENGINEERING CONTROLS: General ventilation (typically 10 air changes for hour) should be used. Ventilation rates should be matched to conditions. Local exhaust ventilation or an enclosed handling system, may be needed to control air contamination below that of the lowest TLV/PEL rated ingredient from Section 2.

EXPOSURE GUIDELINE LEVELS: Since this product is a mixture, an OSHA or ACGIH exposure value is not available. In determination of any exposure procedures, protection or testing use the lowest rated ingredient in Section 2.



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	104 F (39.8 C)	Melting/Freezing Point	-142 F (-96.7 C)
Flash Point, Liquid Content	None	Flash Point, Propellant	-156 F (-104.4 C)
Explosive Limits	6.0% to 36.0%	Autoignition Temperature	1,184 F (640 C)
Flammability	Non-Flammable	Specific Gravity (H₂O = 1)	1.020 g/cc
Molecular Weight	Not Available	Weight	8.513 lbs/gal
Vapor Pressure	400 mm Hg (Liquid)	pH	Not Available
Vapor Density	2.93	Evaporation Rate	27.5 (n-Butyl Acetate = 1)
Physical State	Liquid Under Pressure	Partition Coefficient	Log P(oct) = 1.25
Viscosity	0.43 cp @ 20 C	Refractive Index	Not Available
Percent Volatile	96% Wt (99% Vol) Max	VOC Content	2.042 lbs/gal (244.712 g/l)
Percent VOC	24% Wt (43% Vol) Max	HAP Content	0.340 lbs/gal (40.700 g/l)
Odor Threshold	Not Available	MIR Value	0.273 g O ₃ /g
Odor	Strong Ether-like	Water Solubility	2 g/100 mL @ 20 C
Appearance	Clear Colorless Liquid	Heat of Combustion	13.432 MG/kg

SECTION 10. STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Heat, sparks, flame, red hot metal.

MATERIALS TO AVOID (INCOMPATIBILITIES): Strong oxidizing materials.

CONDITIONS OF REACTIVITY: N/Av

HAZARDOUS DECOMPOSITION BYPRODUCTS: Oxides of carbon, HCl fumes and possible trace amounts of phosgene.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

ID	ORAL LD50	DERMAL LD50	INHALATION LC50
1	1600 mg/kg, rat	> 2000 mg/kg, rabbit	52 mg/l /6 hr, rat
2	Not Available	Not Available	57.42% v/v, mouse
3	6450 mg/kg, rat	Not Available	Not Available
4	5628 mg/kg, rat	15800 mg/kg, rabbit	64000 ppm /4 hr, rat
5	> 5000 mg/kg, rat	Not Available	Not Available

ROUTES OF ENTRY: INHALATION[Y] EYE CONTACT[Y] SKIN CONTACT[Y] SKIN ABSORPTION[Y] INGESTION[N]

EXPOSURE LIMITS: Since this product is a mixture, an OSHA or ACGIH exposure value is not available. In determination of any exposure procedures, protection or testing use the lowest rated ingredient in Section 2.

IRRITANCY OF PRODUCT: N/Av

SENSITIZATION TO PRODUCT / MEDICAL CONDITIONS AGGRAVATED: N/Av

CARCINOGENICITY: This product contains Methylene Chloride (MC), a substance known to the State of California to cause cancer. MC is listed with IARC as Group 2B, "Possibly Carcinogenic to Humans". NIOSH considers MC to be a "Potential Occupational Carcinogen". NTP lists MC as "Reasonably Anticipated To Be A Human Carcinogen". ACGIH lists MC as Group A3, "Animal Carcinogen". MC is not listed with OSHA as Carcinogenic.

TERATOGENICITY / MUTAGENICITY / REPRODUCTIVE TOXICITY: Methyl Alcohol is considered a teratogen. Methylene Chloride is considered a mutagen. None of the ingredients are reproductive toxicants.

TOXICOLOGICAL DATA: N/Av

SECTION 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS: This product has not been tested for environmental effects.

IMPORTANT ENVIRONMENTAL CHARACTERISTICS: N/Av

AQUATIC TOXICITY: N/Av

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Characteristics and waste stream classification can change with product use and location. It is the responsibility of the user to determine the proper storage, transportation, treatment, and/or disposal methodologies for spent materials and residues at the time of disposition. All waste must be disposed of in compliance with the respective national, federal, state, and/or local regulations.

WASTE DISPOSAL OF PACKAGING: In the United States, an aerosol container that does not contain a significant amount of liquid would meet the definition of scrap metal (40 CFR 261.1(c)(6)), and would be exempt from RCRA regulation under 40 CFR 261.6(a)(3)(iv) if it is to be recycled. If containers are to be disposed of (not recycled) it must be managed under all applicable RCRA and state regulations.

LANDFILL PRECAUTIONS: Not Available

INCINERATION PRECAUTIONS: ** DO NOT INCINERATE ** CONTENTS UNDER PRESSURE **

SECTION 14. TRANSPORTATION INFORMATION

DOT HM-181 SHIPPING INFORMATION

PROPER SHIPPING NAME : Consumer Commodity
HAZARD CLASS OR DIVISION : ORM-D
UN NUMBER : 1950
PACKAGING GROUP : none
LABEL(S) REQUIRED : none
LEVEL : 1



SECTION 15. REGULATORY INFORMATION

UNITED STATES - FEDERAL:

ID	TSCA	SARA 302	RCRA	CERCLA	SARA 313	FIRE	REACTIVITY	SARA 311/312		PRESSURE	CLEAN	CLEAN
	INVENTORY	EHS						ACUTE	CHRONIC		AIR ACT	WATER ACT
1	✓	—	U080	1000 #	72 %	—	—	✓	✓	—	HAP	PP
2	✓	—	—	—	—	✓	—	✓	—	✓	—	—
3	✓	—	—	—	—	—	—	✓	—	—	—	—
4	✓	—	U154	5000 #	3.9 %	✓	—	✓	✓	—	HAP	—
5	✓	—	—	—	—	—	—	—	—	—	—	—

UNITED STATES - STATES:

ID	CALIFORNIA	DELAWARE	FLORIDA	MASSACHUSETTS	PENNSYLVANIA	MINNESOTA	NEW JERSEY	NEW YORK	WASHINGTON
	1	C	✓	✓	1,2,3,4,5,6 *E*C* F7 F8	ES	ANO	✓	✓
2	—	—	—	—	—	—	—	—	—
3	—	—	—	—	—	A	—	—	—
4	—	—	✓	2,4,5,6 F8 F9	E	ANO	✓	✓	✓
5	—	—	—	—	—	—	—	—	—

SECTION 16. OTHER INFORMATION

N/E Not Established
N/Av Not Available
N/Ap Not Applicable
IARC International Agency for Research on Cancer
ACGIH American Conference of Governmental Industrial Hygienists
NIOSH National Institute for Occupational Health and Safety
TLV-TWA Threshold Limit Values, Time Weighted Average
NAERG North American Emergency Response Guidebook

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