



SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

Section 1: Product and Company Identification

Product Name: **Radnor Cleaner Nuclear Grade (Aerosol)**
Product Identifier: Nuclear Cleaner/Remover
Product Use: Cleaner
Item Code(s): 64000212
SDS Code: 030R
Supplier: Radnor
Physical Address: 259 North Radnor - Chester Road - Suite 100
Radnor, PA 19087-5283
Emergency Phone: 866-734-3438
Date of Preparation: June 13, 2003 (Revised September 26, 2018)
OSHA Regulatory Status: Regulated
WHMIS Classification: A, B-5, D-2B

Section 2: Hazard Identification

Classification

Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A
Aspiration toxicity	Category 1
Flammable aerosols	Category 1

GHS Label Elements, Including Precautionary Statements

Emergency Overview

DANGER

Hazard Statements

May cause genetic defects
May cause cancer
May be fatal if swallowed and enters airways
Extremely flammable aerosol



Appearance: Clear

Physical State: Aerosol

Odor: Solvent

Precautionary Statements - Response

IF EXPOSED OR CONCERNED: Get medical advice/attention
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC):

Other Information

May be harmful in contact with skin

Section 3: Composition and Information on Ingredients

Chemical Name	CAS-No	Weight %*
PETROLEUM DISTILLATES	64742-89-8	80 - 90%
PROPANE/ISOBUTANE/N-BUTANE	68476-86-8	10 - 20%

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

Section 4: First Aid Measures

First Aid Measures for Different Exposure Routes

EYE CONTACT: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

SKIN CONTACT: Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

INHALATION: Move to fresh air. If symptoms persist, call a physician.

INGESTION: Do NOT induce vomiting. Call a physician immediately.

Most Important Symptoms/Effects, Acute and Delayed

MAIN SYMPTOMS: Not applicable.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary

NOTES TO PHYSICIAN: Treat symptomatically.

Section 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.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

PERSONAL PRECAUTIONS: Ensure adequate ventilation.

Environmental Precautions

ENVIRONMENTAL PRECAUTIONS: Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and Materials for Containment and Cleaning Up

METHODS FOR CONTAINMENT: Prevent further leakage or spillage if safe to do so.

METHODS FOR CLEANING UP: Pick up and transfer to properly labeled containers

Section 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 containers tightly closed in a dry, cool and well-ventilated place.

INCOMPATIBLE PRODUCTS: None known based on information supplied.

AEROSOL LEVEL: 3

Section 8: Exposure Controls / Personal Protection

Control Parameters

EXPOSURE GUIDELINES:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
BENZENE 71-43-2	STEL: 2.5 ppm TWA: 0.5 ppm S*	TWA: 10 ppm applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028 TWA: 1 ppm (vacated) TWA: 10 ppm unless specified in 1910.1028 (vacated) STEL: 50 ppm 10 min unless specified in 1910.1028 (vacated) Ceiling: 25 ppm unless specified in 1910.1028 Ceiling: 25 ppm STEL: 5 ppm see 29 CFR 1910.1028	IDLH: 500 ppm TWA: 0.1 ppm STEL: 1 ppm

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.

Section 9: Physical and Chemical Properties

PHYSICAL STATE: Aerosol
APPEARANCE: Clear
COLOR: No information available
ODOR: Solvent
ODOR THRESHOLD: No information available

Property	Values	Remarks • Methods
<u>pH:</u>	No information available	Not applicable
<u>MELTING/FREEZING POINT:</u>	No information available	
<u>BOILING POINT/BOILING RANGE:</u>	No information available	
<u>FLASH POINT:</u>	-96.4°C / -141°F	Based on propellant
<u>EVAPORATION RATE:</u>	No information available	
<u>FLAMMABILITY (SOLID, GAS):</u>	No information available	
<u>FLAMMABILITY LIMITS IN AIR:</u>		
Upper Flammability Limit	No information available	
Lower Flammability Limit	No information available	
<u>VAPOR PRESSURE:</u>	No information available	
<u>VAPOR DENSITY:</u>	No information available	
<u>SPECIFIC GRAVITY:</u>	0.717	
<u>WATER SOLUBILITY:</u>	Practically insoluble	
<u>PARTITION COEFFICIENT:</u> n-octanol/water	No information available	
<u>AUTO-IGNITION TEMPERATURE:</u>	No information available	Not applicable
<u>DECOMPOSITION TEMPERATURE:</u>	No information available	
<u>VISCOSITY:</u>	No information available	
<u>EXPLOSIVE PROPERTIES:</u>	No information available	
Other information		
<u>VOC CONTENT(%):</u>	100	

Section 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: None known based on information supplied.

HAZARDOUS DECOMPOSITION PRODUCTS: None known based on information supplied.

Section 11: Toxicological Information

Information on Likely Routes of Exposure

PRODUCT INFORMATION: Product does not present an acute toxicity hazard based on known information

INHALATION: There is no data available for this product.

EYE CONTACT: There is no data available for this product.

SKIN CONTACT: There is no data available for this product.

INGESTION: There is no data available for this product.

Component Information

Information on Toxicological Effects

SYMPTOMS: No information available.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

SENSITIZATION: No information available.

GERM CELL MUTAGENICITY: No information available.

CARCINOGENICITY: There are no known carcinogenic chemicals in this product.

REPRODUCTIVE TOXICITY: No information available.

SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE): No information available.

SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE): No information available.

ASPIRATION HAZARD: No information available.

Numerical Measures of Toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (dermal): 3612 mg/kg

Section 12: Ecological Information

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
PETROLEUM DISTILLATES 64742-89-8	4700: 72 h Pseudokirchneriella subcapitata mg/L EC50			

PERSISTENCE AND DEGRADABILITY: No information available.

BIOACCUMULATION: No information available

Chemical Name	log Pow
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	2.8

OTHER ADVERSE EFFECTS: No information available

Section 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.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Section 14: Transportation Information

DOT GROUND: CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY

IATA: UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

IMDG: UN1950, AEROSOLS, 2.1, LTD. QTY.

Section 15: Regulatory Information

INTERNATIONAL INVENTORIES

Chemical Name	TSCA	DSL/NDSL	EINECS/ ELINCS	ENCS	IECSC	KECL	PICCS	AICS
PETROLEUM DISTILLATES	X	X	X	Not listed	X	Present	X	X
PROPANE/ISOBUTANE/ N-BUTANE	X	X	X	Not listed	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - 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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

SARA 311/312 Hazard Categories

ACUTE HEALTH HAZARD: Yes

CHRONIC HEALTH HAZARD: No

FIRE HAZARD: Yes

SUDDEN RELEASE OF PRESSURE HAZARD: No

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):

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):

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
ETHYL BENZENE 100-41-4	Carcinogen
BENZENE 71-43-2	Carcinogen Developmental Male Reproductive

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
PETROLEUM DISTILLATES 64742-89-8			X
BENZENE 71-43-2	X	X	X
ETHYL BENZENE 100-41-4	X	X	X

Canada

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

Section 16: Other Information

NFPA: Health Hazard | 2 | Flammability | 4 | Instability | 0 | Physical and Chemical Hazards | - |
HMIS: Health Hazard | 2 | Flammability | 4 | Physical Hazard | 1 | Personal Protection | B |

This SDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. Radnor provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Radnor. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made.