

Safety Data Sheet

acc. to OSHA HCS & WHMIS

Printing date 01/05/2018

Reviewed on 01/05/2018

1 Identification

- **Product identifier:** RAD64000140, RAD64000141, RAD64000142, RAD64000143
 - **Trade name:** **RADNOR® LEAK TEST CRYOGENIC/LOW TEMPERATURE**
 - **Item number(s):** RAD64000140, RAD64000141, RAD64000142, RAD64000143
 - **MSDS Number:** 212
 - **Manufacturer/Supplier:**
ADDRESS :
- RADNOR WELDING PRODUCTS
259 N. RADNOR-CHESTER ROAD SUITE 100
RADNOR, PA 19087-5283
- **Information department:** <http://www.airgas.com/>
 - **Emergency telephone number:** 866-734-3438

2 Hazard(s) identification

- **Classification of the substance or mixture:**



GHS08 Health hazard

Specific Target Organ Toxicity - Repeated Exposure H373 May cause damage to the kidneys through prolonged or repeated exposure.
- Category 2



GHS07

Acute Toxicity (Oral) - Category 4

H302 Harmful if swallowed.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Signal word:** Warning

- **Hazard-determining components of labeling:**

ethylene glycol

- **Hazard statements:**

Harmful if swallowed.

May cause damage to the kidneys through prolonged or repeated exposure.

- **Precautionary statements:**

Do not breathe mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

IF SWALLOWED: Call a doctor if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Rinse mouth.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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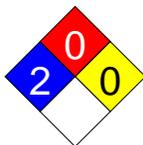
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· **NFPA ratings (scale 0 - 4):**



Health = 2
Fire = 0
Reactivity = 0

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

107-21-1	ethylene glycol	30-60% w/w
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- **Additional information:**
Exact concentrations and/or compositions are being withheld as trade secrets.

4 First-aid measures

- **General information:** Symptoms of poisoning may even occur after several hours.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.
- **After swallowing:** Call a poison center/doctor if you feel unwell. Rinse mouth.
- **Most important symptoms and effects, both acute and delayed:**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
Wear protective clothing.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** Leak detection compound

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

107-21-1 ethylene glycol

EL (Canada)	Short-term value: 20** mg/m ³ Long-term value: 10** mg/m ³ Ceiling limit value: 100* mg/m ³ , 50*** ppm *Aerosol; **Particulate; ***Vapour
EV (Canada)	Ceiling limit value: 100 mg/m ³
TLV (USA)	Short-term value: NIC-127* NIC-10** mg/m ³ , NIC-50* ppm Long-term value: NIC-63.5* mg/m ³ , NIC-25* ppm Ceiling limit value: (100) mg/m ³ (H); *inh. fraction + vapor, P:**inh. fraction, H

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Material of gloves:**
Protective gloves not normally required. People with sensitive skin may prefer to wear water-proof gloves, such as rubber or neoprene, to avoid skin contact.
- **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

- | | |
|--------------------------|-----------------|
| · Form: | Liquid |
| · Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |

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· pH-value at 20 °C:	7
· Change in condition	
Melting point/Melting range:	-54 °C
Boiling point/Boiling range:	100 °C
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	410 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	3.2 Vol %
Upper:	53.0 Vol %
· Vapor pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.075 g/cm ³
· Relative density:	Not determined.
· Vapor density:	Not determined.
· Evaporation rate at 20 °C:	.610 (BA=1)
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
VOC content:	0.0 g/l / 0.00 lb/gl
· Other information	No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

- **Information on toxicological effects:**
- **Acute toxicity**

- **LD/LC50 values that are relevant for classification:**

107-21-1 ethylene glycol

Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	9530 mg/kg (rabbit)

- **Specific symptoms in biological assay:** No further relevant information available.
- **Primary irritant effect**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings**

- **Recommendation:**

Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

14 Transport information

· UN-Number	
· DOT, TDG, ADN, IMDG, IATA	Not regulated
· UN proper shipping name	
· DOT, TDG, ADN, IMDG, IATA	Not regulated
· Transport hazard class(es)	
· DOT, TDG, ADN, IMDG, IATA	
· Class	Not regulated
· Packing group	
· DOT, TDG, IMDG, IATA	Not regulated
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user:	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
· UN "Model Regulation":	Not regulated

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

107-21-1	ethylene glycol
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3251-23-8	copper dinitrate
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- **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempted

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

107-21-1	ethylene glycol
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· **Canadian substance listings**

· **Canadian Domestic Substances List (DSL/NDSL):**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%):**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%):**

107-21-1	ethylene glycol
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· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**

ethylene glycol

· **Hazard statements**

Harmful if swallowed.

May cause damage to the kidneys through prolonged or repeated exposure.

· **Precautionary statements**

Do not breathe mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

IF SWALLOWED: Call a doctor if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Rinse mouth.

Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

The information contained herein is provided 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 our control. 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.

· **Department issuing SDS:** Product safety department

· **Contact:**

Stephen Nowicki

N/Av

· **Date of preparation / last revision** 01/05/2018 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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