

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 09/02/2021

Reviewed on 09/02/2021

### 1 Identification

- **Product identifier:** 11009768
- **Trade name:** **SolidWELD Penetrant**
- **Item number(s):** 11009768
- **SDS Number:** 540
- **Application of the substance / the mixture** DYE PENETRANT
- **Manufacturer/Supplier:**  
Messer Canada Inc.  
5860 Chedworth Way  
Mississauga, ON  
L5R 0A2 Canada
- **Information department:**  
Phone: 1-888-256-7359  
www.messer-ca.com  
www.shop.messer-ca.com
- **Emergency telephone number:**  
ChemTrec (800) 424-9300 / 1-(703)-741-5970  
Canada only: CANUTEC (Call collect) (613) 996-6666

### 2 Hazard identification

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



GHS02 Flame

Flammable Aerosols - Category 1

H222-H229 Extremely flammable aerosol.  
Pressurized container: may burst if heated.

GHS04 Gas cylinder

Gases Under Pressure - Compressed Gas

H280 Contains gas under pressure; may explode if heated.



GHS08 Health hazard

Carcinogenicity - Category 1A

H350 May cause cancer.

Specific Target Organ Toxicity - Single Exposure - Category 1

H370-H371 Causes damage to the blood. May cause damage to the eyes.

Specific Target Organ Toxicity - Repeated Exposure - Category 1

H372-H373 Causes damage to the eyes through prolonged or repeated exposure. May cause damage to the lung and the respiratory tract through prolonged or repeated exposure.

Aspiration Hazard - Category 1

H304 May be fatal if swallowed and enters airways.

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GHS07

Specific Target Organ Toxicity - Single Exposure - H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.  
 Category 3

- **Label elements**

- **GHS label elements**

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

- **Signal word:** Danger

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

Solvent naphtha (petroleum), heavy arom.

Petroleum gases, liquefied

1,2,4-trimethylbenzene

naphthalene

- **Hazard statements:**

H222-H229 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

H350 May cause cancer.

H370-H371 Causes damage to the blood. May cause damage to the eyes.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H372-H373 Causes damage to the eyes through prolonged or repeated exposure. May cause damage to the lung and the respiratory tract through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

- **Precautionary statements:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe mist/vapors/spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 If swallowed: Immediately call a doctor.

P331 Do NOT induce vomiting.

P304+P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P311 IF exposed or concerned: Call a doctor.

P314 Get medical advice/attention if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- Information pertaining to particular dangers for man and environment:
- NFPA ratings (scale 0 - 4):



Health = 2  
Fire = 4  
Reactivity = 0

### 3 Composition/Information on ingredients

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

- **Dangerous components:**

64742-94-5	Solvent naphtha (petroleum), heavy arom.	60-80% w/w *
68476-85-7	Petroleum gases, liquefied	10-30% w/w *
112-34-5	2-(2-butoxyethoxy)ethanol	1-5% w/w *
95-63-6	1,2,4-trimethylbenzene	1-5% w/w *
71819-51-7	C.I. SOLVENT RED 164	1-5% w/w *
91-20-3	naphthalene	0.1-1% w/w *

\* Actual concentration ranges are withheld as a trade secret.

### 4 First-aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
Generally the product does not irritate the skin.
- **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.  
Rinse opened eye for several minutes under running water.
- **After swallowing:** Rinse mouth, do not induce vomiting, Immediately call a poison center / doctor.
- **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:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Protective equipment:** No special measures required.

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### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Do not spray on a naked flame or any incandescent material.  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Do not gas tight seal receptacle.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **Specific end use(s):** No further relevant information available.

### 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:**

#### 68476-85-7 Petroleum gases, liquefied

EL (Canada)	EX, Simple asphyxiant
EV (Canada)	TWA: 1,000 ppm
PEL (USA)	TWA: 1800 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	TWA: 1800 mg/m <sup>3</sup> , 1000 ppm

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TLV (USA)	refer to Appendix F in TLVs&BEIs book; (D, EX)
<b>112-34-5 2-(2-butoxyethoxy)ethanol</b>	
TLV (USA)	TWA: 67.5* mg/m <sup>3</sup> , 10* ppm *Inhalable fraction and vapor
<b>95-63-6 1,2,4-trimethylbenzene</b>	
REL (USA)	TWA: 125 mg/m <sup>3</sup> , 25 ppm
TLV (USA)	TWA: 123 mg/m <sup>3</sup> , 25 ppm
<b>91-20-3 naphthalene</b>	
EL (Canada)	TWA: 10 ppm Skin; IARC 2B
EV (Canada)	STEL: 78 mg/m <sup>3</sup> , 15 ppm TWA: 52 mg/m <sup>3</sup> , 10 ppm
PEL (USA)	TWA: 50 mg/m <sup>3</sup> , 10 ppm
REL (USA)	STEL: 75 mg/m <sup>3</sup> , 15 ppm TWA: 50 mg/m <sup>3</sup> , 10 ppm
TLV (USA)	TWA: 52 mg/m <sup>3</sup> , 10 ppm Skin; BEI

- **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:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Material of gloves:**  
Nitrile rubber, NBR  
Butyl rubber, BR
- **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

· <b>Form:</b>	Liquid Under Pressure
· <b>Color:</b>	Dark red
· <b>Odor:</b>	Aromatic
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	-68.3 °C
<b>Boiling point/Boiling range:</b>	132 °C
· <b>Flash point:</b>	-104 °C (Prop. (28.3°C liq.))
· <b>Flammability (solid, gaseous):</b>	Extremely flammable liquefied gas.

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· Ignition temperature:	227.8 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits	
Lower:	0.9 Vol %
Upper:	24.6 Vol %
· Vapor pressure at 20 °C:	70 hPa
· Density at 20 °C:	0.775 g/cm <sup>3</sup>
· Relative density:	Not determined.
· Vapor density at 20 °C:	5.58 (AIR=1)
· Evaporation rate:	Not applicable.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC content:	6.50 % 50.4 g/l / 0.42 lb/gal
· Other information	VOC Content: 763.954 g/l VOC %: 99% (Wt) HAP Content: 6.133 g/l MIR Value: 5.946 g O <sub>3</sub> /g

## 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.

## 11 Toxicological information

- Information on toxicological effects:
- Acute toxicity

· LD/LC50 values that are relevant for classification:

**95-63-6 1,2,4-trimethylbenzene**

Oral	LD50	5,000 mg/kg (rat)
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**91-20-3 naphthalene**

Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rat)

- **Primary irritant effect**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

91-20-3	naphthalene	2B
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· **NTP (National Toxicology Program)**

91-20-3	naphthalene	R
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## 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 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **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.
- **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

- |                                   |               |
|-----------------------------------|---------------|
| · <b>UN-Number</b>                |               |
| · <b>DOT/TDG, ADR, IMDG, IATA</b> | UN1950        |
| · <b>UN proper shipping name</b>  |               |
| · <b>DOT/TDG</b>                  | Aerosols      |
| · <b>ADR</b>                      | 1950 AEROSOLS |

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· IMDG, IATA	AEROSOLS
· Transport hazard class(es)	
· DOT/TDG (Transport dangerous goods):	
	
· Class	2.1
· Label	2.1
· ADR	
 	
· Class	2 Gases
· Label	2.1
· IMDG, IATA	
	
· Class	2.1
· Label	2.1
· Packing group	
· DOT/TDG, ADR, IMDG, IATA	Not regulated
· Environmental hazards:	
· Marine pollutant:	No
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user:	Warning: Gases
· Hazard identification number (Kemler code):	-
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

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· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT/TDG</b>	On passenger aircraft/rail: Forbidden
· <b>Quantity limitations</b>	On cargo aircraft only: Forbidden
· <b>Remarks:</b>	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· <b>ADR</b>	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>Remarks:</b>	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· <b>IATA</b>	
· <b>Remarks:</b>	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· <b>UN "Model Regulation":</b>	UN 1950 AEROSOLS, 2.1

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Sara**

· <b>Section 355 (extremely hazardous substances):</b>
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None of the ingredients is listed.
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· <b>Section 313 (Specific toxic chemical listings):</b>
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112-34-5	2-(2-butoxyethoxy)ethanol
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95-63-6	1,2,4-trimethylbenzene
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91-20-3	naphthalene
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· <b>TSCA (Toxic Substances Control Act):</b>
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All ingredients are listed or exempted
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· <b>Proposition 65</b>
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· <b>Chemicals known to cause cancer:</b>
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91-20-3	naphthalene
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· <b>Chemicals known to cause reproductive toxicity for females:</b>
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None of the ingredients is listed.
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- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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

None of the ingredients is listed.

- **Canadian substance listings**

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

All ingredients are listed.

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

95-63-6 | 1,2,4-trimethylbenzene

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

112-34-5 | 2-(2-butoxyethoxy)ethanol

91-20-3 | naphthalene

- **GHS label elements**

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

- **Hazard pictograms**



GHS02 GHS04 GHS08 GHS07

- **Signal word** Danger

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

Solvent naphtha (petroleum), heavy arom.

Petroleum gases, liquefied

1,2,4-trimethylbenzene

naphthalene

- **Hazard statements**

H222-H229 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

H350 May cause cancer.

H370-H371 Causes damage to the blood. May cause damage to the eyes.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H372-H373 Causes damage to the eyes through prolonged or repeated exposure. May cause damage to the lung and the respiratory tract through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

## 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

- **Date of the latest revision of the safety data sheet** 09/02/2021 / -

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

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DOT: US Department of Transportation  
IATA: International Air Transport Association  
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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