

Safety Data Sheet

acc. to OSHA HCS & WHMIS

Printing date 02/01/2016

Reviewed on 01/28/2016

1 Identification

- **Product identifier:** 0815482, 0815482V01
- **Trade name:** **RED BLACKSTONE® SOLVENT REMOVABLE VISIBLE DYE PENETRANT**
- **Item number(s):** 0815482, 0815482V01
- **MSDS Number:** 422
- **Application of the substance / the mixture** INSPECTION DYE
- **Manufacturer/Supplier:**
 USA:
 Fastenal Company
 2001 Theurer Blvd
 Winona, MN 55987

 Canada:
 Fastenal Company
 900 Wabanaki Drive
 Kitchener, ON, N2C 0B7

 www.fastenal.com
- **Information department:** (507) 454-5374
- **Emergency telephone number:**
 ChemTrec (800) 424-9300
 Canada only: CANUTEC (Call collect) (613) 996-6666

2 Hazard(s) identification

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



GHS02 Flame

Flammable Aerosols - Category 1

H222

Extremely flammable aerosol.



GHS04 Gas cylinder

Gases Under Pressure - Compressed Gas

H280

Contains gas under pressure; may explode if heated.



GHS08 Health hazard

Carcinogenicity – Category 2

H351

Suspected of causing 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 nose 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.

naphthalene

C.I. SOLVENT RED 164

1,2,4-trimethylbenzene

- **Hazard statements:**

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Suspected of causing cancer.

Causes damage to the blood. May cause damage to the eyes.

May cause respiratory irritation. May cause drowsiness or dizziness.

Causes damage to the eyes through prolonged or repeated exposure. May cause damage to the lung and the nose through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

- **Precautionary statements:**

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

Do not pierce or burn, even after use.

Do not breathe dust/fume/gas/mist/vapours/spray.

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

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

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

Obtain special instructions before use.

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

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

IF INHALED: Call a doctor if you feel unwell.

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

Get medical advice/attention if you feel unwell.

Do NOT induce vomiting.

IF exposed or concerned: Call a doctor.

Store locked up.

Protect from sunlight. Store in a well-ventilated place.

Do not expose to temperatures exceeding 50 °C/122 °F.

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

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· **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:**

68476-85-7	Petroleum gases, liquefied	25-30% w/w
112-34-5	2-(2-butoxyethoxy)ethanol	1-5% w/w
91-20-3	naphthalene	1-5% w/w
95-63-6	1,2,4-trimethylbenzene	0.1-≤1% w/w

- **Additional information:** Exact concentrations are being withheld as trade secrets.

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:** CO₂, 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.

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.

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- 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)	Short-term value: 1250 ppm Long-term value: 1000 ppm
PEL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV (USA)	refer to Appendix F in TLVs and BEIs book

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

TLV (USA)	Long-term value: 67.5* mg/m ³ , 10* ppm *Inhalable fraction and vapor
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91-20-3 naphthalene

EL (Canada)	Short-term value: 15 ppm Long-term value: 10 ppm Skin; IARC 2B
EV (Canada)	Short-term value: 78 mg/m ³ , 15 ppm Long-term value: 52 mg/m ³ , 10 ppm
PEL (USA)	Long-term value: 50 mg/m ³ , 10 ppm
REL (USA)	Short-term value: 75 mg/m ³ , 15 ppm Long-term value: 50 mg/m ³ , 10 ppm
TLV (USA)	Long-term value: 52 mg/m ³ , 10 ppm Skin; BEI

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

REL (USA)	Long-term value: 125 mg/m ³ , 25 ppm
TLV (USA)	Long-term value: 123 mg/m ³ , 25 ppm

- **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

• Form:	Liquid Under Pressure
• Color:	Dark red
• Odor:	Aromatic
• Odor threshold:	Not determined.
• pH-value:	Not determined.
• Change in condition	
Melting point/Melting range:	-68.3 °C
Boiling point/Boiling range:	132 °C
• Flash point:	-104 °C (Prop. (28.3°C liq.))
• Flammability (solid, gaseous):	Extremely flammable liquefied gas.
• Ignition temperature:	227.8 °C
• Decomposition temperature:	Not determined.

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· 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:	.85 Vol %
Upper:	24.6 Vol %
· Vapor pressure at 20 °C:	70 psig
· Density at 20 °C:	0.775 g/cm ³
· Relative density:	Not determined.
· Vapour 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:	
Organic solvents:	5.1 %
· Other information	VOC Content: 763.954 g/l
	VOC %: 99% (Wt)
	HAP Content: 6.133 g/l
	MIR Value: 5.946 g O ₃ /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:**

91-20-3 naphthalene

Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rat)

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

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- **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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- **OSHA-Ca (Occupational Safety & Health Administration)**

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 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

- | | |
|--|---|
| <ul style="list-style-type: none"> · UN-Number · DOT, TDG, IMDG, IATA | UN1950 |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT, IATA | Aerosols, flammable, containing substances in Division 6.1, Packing Group III |
| <ul style="list-style-type: none"> · TDG · IMDG | 1950 Aerosols
AEROSOLS |

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· **Transport hazard class(es)**

· **DOT**



- **Class** 2.1
 · **Label** 2.1, 6.1
 · **TDG (Transport dangerous goods):**



- **Class** 2 5TF Gases
 · **Label** 2.1+6.1

· **IMDG**



- **Class** 2.1
 · **Label** 2.1/6.1

· **IATA**



- **Class** 2.1
 · **Label** 2.1 (6.1)

- **Packing group**
 · **DOT, TDG, IMDG, IATA** Not regulated

- **Environmental hazards:**
 · **Marine pollutant:** No
 · **Special marking (TDG):** Symbol (fish and tree)

- **Special precautions for user:** Warning: Gases
 · **Danger code (Kemler):** -
 · **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.

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· 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.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
· Transport/Additional information:	
· DOT	On passenger aircraft/rail: Forbidden
· Quantity limitations	On cargo aircraft only: Forbidden
· Remarks:	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· TDG	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Remarks:	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· IATA	
· Remarks:	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1 (6.1)

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):**

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

91-20-3 naphthalene

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

· **TSCA (Toxic Substances Control Act):**

64742-94-5 Solvent naphtha (petroleum), heavy arom.

68476-85-7 Petroleum gases, liquefied

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112-34-5	2-(2-butoxyethoxy)ethanol
91-20-3	naphthalene
71819-51-7	C.I. SOLVENT RED 164
95-63-6	1,2,4-trimethylbenzene

• **Proposition 65**

• **Chemicals known to cause cancer:**

91-20-3	naphthalene
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• **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.

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

Exposure during foreseeable use has been determined to be below the Maximum Allowable Dose Level.

• **Carcinogenic categories**

• **EPA (Environmental Protection Agency):**

91-20-3	naphthalene	C, CBD
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• **TLV (Threshold Limit Value established by ACGIH):**

91-20-3	naphthalene	A4
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• **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients is listed.

• **Canadian substance listings**

• **Canadian Domestic Substances List (DSL):**

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

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

95-63-6	1,2,4-trimethylbenzene
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• **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

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

Solvent naphtha (petroleum), heavy arom.

naphthalene

C.I. SOLVENT RED 164

1,2,4-trimethylbenzene

- **Hazard statements**

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Suspected of causing cancer.

Causes damage to the blood. May cause damage to the eyes.

May cause respiratory irritation. May cause drowsiness or dizziness.

Causes damage to the eyes through prolonged or repeated exposure. May cause damage to the lung and the nose through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

- **Precautionary statements**

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

Do not pierce or burn, even after use.

Do not breathe dust/fume/gas/mist/vapours/spray.

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

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

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

Obtain special instructions before use.

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

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

IF INHALED: Call a doctor if you feel unwell.

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

Get medical advice/attention if you feel unwell.

Do NOT induce vomiting.

IF exposed or concerned: Call a doctor.

Store locked up.

Protect from sunlight. Store in a well-ventilated place.

Do not expose to temperatures exceeding 50 °C/122 °F.

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

- **Date of preparation / last revision** 02/01/2016 / 1

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Flammable Aerosols - Category 1: Flammable aerosols, Hazard Category 1

Gases Under Pressure - Compressed Gas: Gases under pressure: Compressed gas

Carcinogenicity – Category 2: Carcinogenicity, Hazard Category 2

Specific Target Organ Toxicity - Single Exposure - Category 1: Specific target organ toxicity - Single exposure, Hazard Category 1

Specific Target Organ Toxicity - Repeated Exposure - Category 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

Aspiration Hazard - Category 1: Aspiration hazard, Hazard Category 1

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