Printing date 01/20/2016

Reviewed on 01/20/2016

1 Identification

- · Product identifier: 0815490, 0815490V01
- Trade name: <u>AEROSOL CLEAR BLACKSTONE® SOLVENT REMOVABLE DYE PENETRANT</u> SOLVENT CLEANER
- · Item number(s): 0815490, 0815490V01
- · MSDS Number: 424
- Application of the substance / the mixture DYE PENETRANT CLEANER
- · 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 | | |
| Aspiration Hazard - Category 1 | H304 | May be fatal if swallowed and enters airways. |
| GHS07 | | |
| Skin Irritation - Category 2 | H315 | Causes skin irritation. |
| Eye Irritation - Category 2A | H319 | Causes serious eye irritation. |
| Specific Target Organ Toxicity - Single Exposure - Category 3 | H335-H336 | May cause respiratory irritation. May cause drowsiness or dizziness. (Contd. on page 2) |

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Trade name: AEROSOL CLEAR BLACKSTONE® SOLVENT REMOVABLE DYE PENETRANT SOLVENT CLEANER (Contd. of page 1) · 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: Distillates (petroleum), hydrotreated light propan-2-ol acetone butanone · Hazard statements: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. 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 spray on an open flame or other ignition source. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear eye protection / face protection. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Call a doctor if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If eve irritation persists: Get medical advice/attention. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations. · NFPA ratings (scale 0 - 4): Health = 2Fire = 4Reactivity = 0

3 Composition/information on ingredients

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

· Dangerous components:

64742-47-8 Distillates (petroleum), hydrotreated light

30-60% w/w

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| | | (Contd. of page 2) |
|------------|---|--------------------|
| 67-63-0 | propan-2-ol | 10-<25% w/w |
| 67-64-1 | acetone | ≤10% w/w |
| 78-93-3 | butanone | 3-7% w/w |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | 1-5% w/w |
| اممانامهما | reformation: Exact concentrations are being withhold as trade approx | |

· Additional information: Exact concentrations 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

· 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: If swallowed, do not induce vomiting. Get medical attention right away.
- 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: Mouth respiratory protective device.

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:
- Dispose contaminated material as waste according to item 13. 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.

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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.

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. Keep respiratory protective device available. 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.

| 64742-47-8 D | Distillates (petroleum), hydrotreated light | |
|--------------|--|--|
| EL (Canada) | Long-term value: 200 mg/m³ Skin | |
| 67-63-0 prop | an-2-ol | |
| EL (Canada) | Short-term value: 400 ppm Long-term value: 200 ppm | |
| EV (Canada) | Short-term value: 400 ppm Long-term value: 200 ppm | |
| PEL (USA) | Long-term value: 980 mg/m³, 400 ppm | |
| REL (USA) | Short-term value: 1225 mg/m³, 500 ppm Long-term value: 980 mg/m³, 400 ppm | |
| TLV (USA) | Short-term value: 984 mg/m³, 400 ppm Long-term value: 492 mg/m³, 200 ppm BEI | |

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| 67-64-1 ac | etone | (Contd. of page |
|-------------------------|---|-----------------|
| EL (Canada | | |
| (50.100 | Long-term value: 250 ppm | |
| EV (Canad | a) Short-term value: 750 ppm | |
| , | Long-term value: 500 ppm | |
| PEL (USA) | Long-term value: 2400 mg/m ³ , 1000 ppm | |
| REL (USA) | Long-term value: 590 mg/m ³ , 250 ppm | |
| TLV (USA) | Short-term value: 1187 mg/m ³ , 500 ppm | |
| | Long-term value: 594 mg/m ³ , 250 ppm BEI | |
| 78-93-3 bu | | |
| EL (Canad | | |
| | Long-term value: 50 ppm | |
| EV (Canad | | |
| | Long-term value: 590 mg/m ³ , 200 ppm | |
| PEL (USA) | | |
| REL (USA) | Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm | |
| TLV (USA) | | |
| 121 (00/1) | Long-term value: 590 mg/m ³ , 200 ppm | |
| | BEI | |
| 108-65-6 2 | methoxy-1-methylethyl acetate | |
| EL (Canad | | |
| | Long-term value: 50 ppm | |
| • | a) Long-term value: 270 mg/m ³ , 50 ppm | |
| WEEL (US | A) Long-term value: 50 ppm | |
| - | s with biological limit values: | |
| 67-63-0 pr | • | |
| BEI (USA) | | |
| | Medium: urine Time: end of shift at end of workweek | |
| | Parameter: Acetone (background, nonspecific) | |
| 67-64-1 ac | | |
| BEI (USA) | 50 mg/L | |
| , | Medium: urine | |
| | Time: end of shift | |
| 70.02.2 6. | Parameter: Acetone (nonspecific) | |
| 78-93-3 bu BEI (USA) | | |
| DEI (USA) | Medium: urine | |
| | Time: end of shift | |
| | Parameter: MEK | |
| | information: The lists that were valid during the creation were used | as basis. |
| | rotective equipment | |
| | otective and hygienic measures: from foodstuffs, beverages and feed. | |
| | y remove all soiled and contaminated clothing. | |
| | | (Contd. on page |

(Contd. of page 5)

Safety Data Sheet acc. to OSHA HCS & WHMIS

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Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the eyes and skin.

- Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation.
- · Protection of hands:



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Material of gloves:
- Butyl rubber, BR
- Nitrile rubber, NBR
- · Eye protection:



Tightly sealed goggles

| 9 Physical and chemical prope | erties |
|---|--|
| Form: Color: Odor: Odor threshold: | Liquid Under Pressure Colorless Solvent-like Not determined. |
| · pH-value: | Not determined. |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | -95.3 ℃ > 56 ℃ |
| · Flash point: | -104 °C (Prop. (-17 °C liq.)) |
| · Flammability (solid, gaseous): | Extremely flammable liquefied gas. |
| · Ignition temperature: | 210 °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: Upper: | 0.5 Vol % 13.0 Vol % |
| Vapor pressure at 20 °C: | 233 hPa |
| Density at 20 °C: Relative density: Vapour density at 20 °C: Evaporation rate: | 0.8 g/cm ³ Not determined. 4.6 (AIR=1) Not applicable. |
| | (Contd. on page |

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| | | | (Contd. of page 6 |
|---|--|---|-------------------|
| Solubility in / Miscibility with Water: | Not miscible or difficu | It to mix. | |
| · Partition coefficient (n-octanol | /water): Not determined. | | |
| Viscosity: Dynamic: Kinematic: | Not determined. Not determined. | | |
| Solvent content: Organic solvents: Other information | 33.3 % VOC Content: VOC %: HAP Content MIR Value | 693.090 g/l >99 % 154.020 g/l 2.472 g O₃/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
- 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
- Irritant

Carcinogenic.

The product can cause inheritable damage.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

67-63-0 propan-2-ol

· NTP (National Toxicology Program)

None of the ingredients is listed.

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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 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

- Danger to drinking water if even extremely 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 t

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.

| UN-Number | | |
|------------------------------|---------------------|--|
| · DOT, TDG, IMDG, IATA | UN1950 | |
| · UN proper shipping name | | |
| · DOT, IATA | Aerosols, flammable | |
| TDG | 1950 Aerosols | |
| ·IMDG | AEROSOLS | |
| · Transport hazard class(es) | | |
| DOT | | |
| | | |
| | | |
| HAMMABLE GAD | | |
| 2 | | |
| · Class | 2.1 | |

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| | (Contd. of page |
|---|--|
| · Label · TDG (Transport dangerous goods): | 2.1 |
| | |
| · Class · Label | 2 5F Gases 2.1 |
| · IMDG, IATA | |
| | |
| · Class · Label | 2.1 2.1 |
| Packing group DOT, TDG, IMDG, IATA | Not regulated |
| Environmental hazards: Marine pollutant: | No |
| 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 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Categor C, Clear of living quarters. |
| Segregation Code | SG69 For AEROSOLS with a maximum capacity of litre: Segregation as for class 9. Stow "separated from class 1 except for division 1.4. For AEROSOLS with 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 MARPOL73/78 and the IBC Code: | of Not applicable. |
| · Transport/Additional information: | |
| DOT Quantity limitations | On passenger aircraft/rail: 75 kg |
| · Remarks: | On cargo aircraft only: 150 kg This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantit shipping requirements are met. |
| · TDG | This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantit shipping requirements are met. |
| | (Contd. on page 1 |

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| | (Contd. of page 9) |
|--|--|
| 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 |

15 Regulatory information

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture \cdot Sara

| Section 355 (extremely hazardous substances): | |
|---|---------------------------|
| None of the ingredients is listed. | |
| Section 313 (Specific toxic chemical listings): | |
| 67-63-0 propan-2-ol | |
| 78-93-3 butanone | |
| · TSCA (Toxic Substances Control Act): | |
| All ingredients are listed or exempted | |
| · Proposition 65 | |
| · Chemicals known to cause cancer: | |
| None of the ingredients is listed. | |
| \cdot 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 forseeable use has been determined to be below t | he Maximum Allowable Dos |
| Level. | |
| · Carcinogenic categories | |
| | |
| · Carcinogenic categories | |
| Carcinogenic categories EPA (Environmental Protection Agency): | |
| Carcinogenic categories EPA (Environmental Protection Agency): 67-64-1 acetone | |
| Carcinogenic categories EPA (Environmental Protection Agency): 67-64-1 acetone 78-93-3 butanone | A |
| Carcinogenic categories EPA (Environmental Protection Agency): 67-64-1 acetone 78-93-3 butanone TLV (Threshold Limit Value established by ACGIH): | A A (Contd. on page |

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- NIOSH-Ca (National Institute for Occupational Safety and Health):
- None of the ingredients is listed.
- · Canadian substance listings
- \cdot Canadian Domestic Substances List (DSL):
- All ingredients are listed.
- · Canadian Ingredient Disclosure list (limit 0.1%):
- None of the ingredients is listed.

Canadian Ingredient Disclosure list (limit 1%):

- 67-63-0 propan-2-ol
- 67-64-1 acetone
- 78-93-3 butanone
- · GHS label elements
- The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



- · Signal word Danger
- · Hazard-determining components of labeling:
- Distillates (petroleum), hydrotreated light propan-2-ol acetone
- butanone • Hazard statements
- Extremely flammable aerosol.
- Contains gas under pressure; may explode if heated.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause respiratory irritation. May cause drowsiness or dizziness.
- 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 spray on an open flame or other ignition source.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Wear eye protection / face protection.
- Wash thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF INHALED: Call a doctor if you feel unwell.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- If eye irritation persists: Get medical advice/attention.
- Do NOT induce vomiting.
- IF ON SKIN: Wash with plenty of soap and water.
- Take off contaminated clothing and wash it before reuse.

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(Contd. of page 11)

Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

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 MSDS: Product safety department
- · Contact: Stephen Nowicki
- Date of preparation / last revision 01/20/2016 / 2

· 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 CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) 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 Skin Irritation - Category 2: Skin corrosion/irritation, Hazard Category 2 Eye Irritation - Category 2A: Serious eye damage/eye irritation, Hazard Category 2A Specific Target Organ Toxicity - Single Exposure - Category 3: Specific target organ toxicity - Single exposure, Hazard Category 3 Aspiration Hazard - Category 1: Aspiration hazard, Hazard Category 1