1 Identification

- **Product identifier**
- **Trade name:** 39863 Plastic Adhesion Promoter
- **Application of the substance / the mixture:** Coating
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    - SEM Products Inc.
    - 1685 Overview Drive
    - Rock Hill, SC 29730
    - 803 207 8225
- **Information department:**
  - cust_care@semproducts.com : SEM Products,Inc. 1685 Overview Dr. Rock Hill, SC 29730 : phone 1-800-831-1122, M - TH 7am - 4pm EDT
- **Emergency telephone number:** CHEMTREC 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS08 Health hazard
    - Muta. 1A H340 May cause genetic defects.
    - Repr. 2 H361 Suspected of damaging fertility or the unborn child.
    - STOT RE 1 H372 Causes damage to the central nervous system through prolonged or repeated exposure.
    - Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
  - GHS07
    - Skin Irrit. 2 H315 Causes skin irritation.
    - Eye Irrit. 2A H319 Causes serious eye irritation.
    - STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS07
    - GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - Petroleum gases, liquefied, sweetened toluene
  - Solvent naphtha (petroleum), medium aliph. acetone

- **Hazard statements**
  - H315 Causes skin irritation.

(Contd. on page 2)
Trade name: 39863 Plastic Adhesion Promoter

H319 Causes serious eye irritation.
H340 May cause genetic defects.
H361 Suspected of damaging fertility or the unborn child.
H336 May cause drowsiness or dizziness.
H372 Causes damage to the central nervous system 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.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
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 poison center/doctor.
P321 Specific treatment (see on this label).
P331 Do NOT induce vomiting.
P302+P352 If on skin: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P312 Call a poison center/doctor if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P362+P364 Take off contaminated clothing and wash it before reuse.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:

· NFPA ratings (scale 0 - 4)

Health = 2
Fire = 4
Reactivity = 1

· HMIS-ratings (scale 0 - 4)

HEALTH
Health = *2

FIRE
Fire = 4
Reactivity = 1

· Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.
· vPvB: Not applicable.
3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description:
  Mixture: consisting of the following components.
  Weight percentages
- Dangerous components:
<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>68476-86-8 Petroleum gases, liquefied, sweetened</td>
<td>13-30%</td>
</tr>
<tr>
<td>64742-88-7 Solvent naphtha (petroleum), medium aliph.</td>
<td>13-30%</td>
</tr>
<tr>
<td>108-88-3 Toluene</td>
<td>13-30%</td>
</tr>
<tr>
<td>67-64-1 Acetone</td>
<td>13-30%</td>
</tr>
<tr>
<td>123-86-4 n-Butyl acetate</td>
<td>27-&lt;10%</td>
</tr>
</tbody>
</table>

4 First-aid measures

- Description of first aid measures
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  If symptoms persist consult doctor.
- Information for 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

- Extinguishing media
- 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.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: 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.
- 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.
Trade name: 39863 Plastic Adhesion Promoter

- **Protective Action Criteria for Chemicals**

  - **PAC-1:**
    - 108-88-3 toluene 67 ppm
    - 67-64-1 acetone 200 ppm
    - 123-86-4 n-butyl acetate 5 ppm
    - 78-93-3 butanone 200 ppm

  - **PAC-2:**
    - 108-88-3 toluene 560 ppm
    - 67-64-1 acetone 3200* ppm
    - 123-86-4 n-butyl acetate 200 ppm
    - 78-93-3 butanone 2700* ppm

  - **PAC-3:**
    - 108-88-3 toluene 3700* ppm
    - 67-64-1 acetone 5700* ppm
    - 123-86-4 n-butyl acetate 3000* ppm
    - 78-93-3 butanone 4000* ppm

- **Handling and storage**

  - **Handling:**
    - **Precautions for safe handling** No special measures required.
    - **Information about protection against explosions and fires:**
      Do not spray on a naked flame or any incandescent material.
      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.

  - **Conditions for safe storage, including any incompatibilities**

  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:**
      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.

  - **Specific end use(s)** No further relevant information available.

- **Exposure controls/personal protection**

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

  - **Control parameters**
    - **Components with limit values that require monitoring at the workplace:**
      The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
      At this time, the other constituents have no known exposure limits.

  - **108-88-3 toluene**
    - **PEL** Long-term value: 200 ppm
    - Ceiling limit value: 300; 500* ppm
    - *10-min peak per 8-hr shift

(Contd. on page 5)
### Trade name: 39863 Plastic Adhesion Promoter

| REL | Short-term value: 560 mg/m³, 150 ppm  
Long-term value: 375 mg/m³, 100 ppm |
|-----|--------------------------------------|
| TLV | Long-term value: 75 mg/m³, 20 ppm  
BEI   |

#### 67-64-1 acetone

<table>
<thead>
<tr>
<th>PEL</th>
<th>Long-term value: 2400 mg/m³, 1000 ppm</th>
</tr>
</thead>
</table>
| REL | Long-term value: 590 mg/m³, 250 ppm  
TLV   |
|     | Short-term value: 1187 mg/m³, 500 ppm  
Long-term value: 594 mg/m³, 250 ppm  
BEI   |

#### 123-86-4 n-butyl acetate

<table>
<thead>
<tr>
<th>PEL</th>
<th>Long-term value: 710 mg/m³, 150 ppm</th>
</tr>
</thead>
</table>
| REL | Long-term value: 950 mg/m³, 200 ppm  
TLV   |
|     | Short-term value: 712 mg/m³, 150 ppm  
Long-term value: 238 mg/m³, 50 ppm  
BEI   |

#### Ingredients with biological limit values:

#### 108-88-3 toluene

| BEI | 0.02 mg/L  
Medium: blood  
Time: prior to last shift of workweek  
Parameter: Toluene |
|-----|--------------------------------------|
|     | 0.03 mg/L  
Medium: urine  
Time: end of shift  
Parameter: Toluene |
|     | 0.3 mg/g creatinine  
Medium: urine  
Time: end of shift  
Parameter: o-Cresol with hydrolysis (background) |

#### 67-64-1 acetone

| BEI | 50 mg/L  
Medium: urine  
Time: end of shift  
Parameter: Acetone (nonspecific) |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Trade name: 39863 Plastic Adhesion Promoter

- **Protection of hands:**
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

  **Protective gloves**
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  **Safety glasses**
  **Tightly sealed goggles**

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  **General Information**
  **Appearance:**
  - **Form:** Aerosol
  - **Color:** According to product specification
  - **Odor:** Characteristic
  - **Odor threshold:** Not determined.
  **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** -11 °C

- **Flash point:** -40 °C

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 265 °C

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:**
  - **Product does not present an explosion hazard.**
  - **In use, may form flammable/explosive vapour-air mixture.**

- **Explosion limits:**
  - **Lower:** 0.6 Vol %
Trade name: 39863 Plastic Adhesion Promoter

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- 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:
    64742-88-7 Solvent naphtha (petroleum), medium aliph.
    Oral LD50 >6,500 mg/kg (rat)
    Dermal LD50 >3,000 mg/kg (rab)
    Inhalative LC50/4 h >14 mg/l (rat)

  108-88-3 toluene
    Oral LD50 5,000 mg/kg (rat)
    Dermal LD50 12,124 mg/kg (rabbit)
    Inhalative LC50/4 h 5,320 mg/l (mouse)
- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
Trade name: 39863 Plastic Adhesion Promoter

- **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:
  Irritant

- **Carcinogenic categories**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
<td>3</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

12 Ecological information

- **Toxicity**
  - **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.
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **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:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG, IATA: UN1950

- **UN proper shipping name**
  - DOT: Aerosols, flammable (Contd. on page 9)
### Trade name: 39863 Plastic Adhesion Promoter

| · ADR          | 1950 Aerosols |
| · IMDG        | AEROSOLS     |
| · IATA        | AEROSOLS, flammable |

#### Transport hazard class(es)

**DOT**

- **Class**: 2.1
- **Label**: 2.1

**ADR**

- **Class**: 2 5F Gases
- **Label**: 2.1

**IMDG, IATA**

- **Class**: 2.1
- **Label**: 2.1

**Packing group**

**DOT, ADR, IMDG, IATA**

- **Void**

**Environmental hazards:**

- **Marine pollutant**: No

**Special precautions for user**

- **EMS Number**: F-D-S-U
- **Stowage Code**: SW1 Protected from sources of heat.

<table>
<thead>
<tr>
<th>· Segregation Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow &quot;separated from&quot; 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.</td>
</tr>
</tbody>
</table>

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

- **Not applicable.**
**Trade name: 39863 Plastic Adhesion Promoter**

- **Transport/Additional information:**
  - **DOT**
    - **Quantity limitations**
      - On passenger aircraft/rail: 75 kg
      - On cargo aircraft only: 150 kg
    - **Remarks**
      - limited quantity
  - **ADR**
    - **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
  - **UN "Model Regulation":**
    - UN 1950 AEROSOLS, 2.1

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      - None of the ingredient is listed.
    - **Section 313 (Specific toxic chemical listings):**
      - 108-88-3 toluene
      - 78-93-3 butanone
    - **TSCA (Toxic Substances Control Act):**
      - 68476-86-8 Petroleum gases, liquefied, sweetened
      - 64742-88-7 Solvent naphtha (petroleum), medium aliph.
      - 108-88-3 toluene
      - 67-64-1 acetone
      - 123-86-4 n-butyl acetate
      - 78-93-3 butanone
    - **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.
      - **Chemicals known to cause developmental toxicity:**
        - 108-88-3 toluene
    - **Cancerogenity categories**
      - **EPA (Environmental Protection Agency)**
        - 108-88-3 toluene
Trade name: 39863 Plastic Adhesion Promoter

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>TLV (Threshold Limit Value established by ACGIH)</th>
<th>NIOSH-Ca (National Institute for Occupational Safety and Health)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>acetone</td>
<td></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>108-88-3</td>
<td>toluene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67-64-1</td>
<td>acetone</td>
<td>A4</td>
<td></td>
</tr>
</tbody>
</table>

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**
  - GHS07
  - GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
  - Petroleum gases, liquefied, sweetened
  - toluene
  - Solvent naphtha (petroleum), medium aliph.
  - acetone
- **Hazard statements**
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - H340 May cause genetic defects.
  - H361 Suspected of damaging fertility or the unborn child.
  - H336 May cause drowsiness or dizziness.
  - H372 Causes damage to the central nervous system 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.
  - P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  - 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 poison center/doctor.
  - P321 Specific treatment (see on this label).
  - P331 Do NOT induce vomiting.
  - P302+P352 If on skin: Wash with plenty of water.
  - P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P308+P313 IF exposed or concerned: Get medical advice/attention.
  - P312 Call a poison center/doctor if you feel unwell.
  - P314 Get medical advice/attention if you feel unwell.
  - P362+P364 Take off contaminated clothing and wash it before reuse.
  - P332+P313 If skin irritation occurs: Get medical advice/attention.
  - P337+P313 If eye irritation persists: Get medical advice/attention.
Trade name: 39863 Plastic Adhesion Promoter

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environment protection department.
· Contact: Rita Joiner (rjoiner@semproducts.com)
· Date of preparation / last revision 03/14/2018 / 4
· Abbreviations and acronyms:
  IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
  ICAO: International Civil Aviation Organisation
  ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  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)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  BEI: Biological Exposure Limit
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  Muta. 1A: Germ cell mutagenicity – Category 1A
  Repr. 2: Reproductive toxicity – Category 2
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
  Asp. Tox. 1: Aspiration hazard – Category 1

· * Data compared to the previous version altered.