SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Commercial Product Name</th>
<th>Spray Adhesive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>890.910055</td>
</tr>
<tr>
<td>MSDS-Identcode</td>
<td>10033439</td>
</tr>
<tr>
<td>Product Use Description</td>
<td>Adhesives</td>
</tr>
<tr>
<td>Company</td>
<td>Würth Canada Limited</td>
</tr>
<tr>
<td></td>
<td>6330 Tomken Road Mississauga</td>
</tr>
<tr>
<td></td>
<td>Ontario L5T 1N2</td>
</tr>
<tr>
<td></td>
<td>Canada</td>
</tr>
<tr>
<td>Telephone</td>
<td>+1 (905) 564 6225</td>
</tr>
<tr>
<td>Telefax</td>
<td>+1 (905) 564 3671</td>
</tr>
<tr>
<td>Responsible/issuing person</td>
<td><a href="mailto:prodsafe@wuerth.com">prodsafe@wuerth.com</a></td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>In case of emergency please contact: CANUTEC (5:00 pm - 8:00 am): +1 (613) 996 6666</td>
</tr>
<tr>
<td></td>
<td>WÜRTH CANADA LIMITED (8:00 am - 5:00 pm): +1 (905) 564 6225</td>
</tr>
</tbody>
</table>

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Regulatory status: This product, material or substance is a WHMIS controlled product per Sections 33 - 66, Part IV of the CPR.

Signal Word: DANGER
Form: aerosol
Colour: light yellow, clear
Material Safety Data Sheet

Spray Adhesive

Odour: solvent-like
Odour - Control parameters: no data available
Hazard Summary:
- Irritant
  - May cause harm to the unborn child.

Extremely flammable aerosol.
Compressed gas
May cause fire.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C / 122 °F.

Potential Health Effects

Eyes: May cause eye irritation.
Skin: May cause skin irritation.
  - Prolonged or repeated contact may dry skin and cause irritation.
Inhalation: Harmful if inhaled.
  - May be fatal if inhaled.
  - May cause drowsiness or dizziness.
  - May cause respiratory tract irritation.

Target Organs:
- Eyes
- Skin
- Respiratory system
- Gastrointestinal tract

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight percent Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&gt;= 20 - &lt; 25</td>
</tr>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>&gt;= 20 - &lt; 25</td>
</tr>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>&gt;= 15 - &lt; 20</td>
</tr>
<tr>
<td>heptane (and isomers)</td>
<td>142-82-5</td>
<td>&gt;= 5 - &lt; 7</td>
</tr>
<tr>
<td>Heptane, branched, cyclic and linear</td>
<td>426260-76-6</td>
<td>&gt;= 5 - &lt; 7</td>
</tr>
<tr>
<td>methyl acetate</td>
<td>79-20-9</td>
<td>&gt;= 5 - &lt; 7</td>
</tr>
<tr>
<td>toluene</td>
<td>108-88-3</td>
<td>&gt;= 0.2 - &lt; 0.5</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice: If you feel unwell, seek medical advice (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.

Inhalation: If breathed in, move person into fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin contact: In case of contact, immediately flush skin with soap and plenty of water. Do NOT use solvents or thinners. If skin irritation persists, call a physician. Wash off with polyethylene glycol and afterwards with plenty of water.

Eye contact: Protect unharmed eye. If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. If swallowed, DO NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position.
SECTION 5. FIREFIGHTING MEASURES

Form: aerosol
Lower explosion limit: Note: no data available
Upper explosion limit: Note: no data available
Suitable extinguishing media:
- Dry powder
- Carbon dioxide (CO2)
- Water spray
- Foam

Specific hazards during firefighting:
Do not use a solid water stream as it may scatter and spread fire.
Hazardous decomposition products may be formed under fire conditions (see section 10).
Exposure to decomposition products may be a hazard to health.

Special protective equipment for firefighters:
- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.

Further information:
- Standard procedure for chemical fires.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- In the event of fire and/or explosion do not breathe fumes.
- Use water spray to cool unopened containers.
- Collect contaminated fire extinguishing water separately.
- This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

SECTION 6. ACCIDENTAL RELEASE MEASURES
Material Safety Data Sheet

Spray Adhesive

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| Personal precautions | Refer to protective measures listed in sections 7 and 8.  
|                      | Use personal protective equipment.  
|                      | Remove all sources of ignition.  
|                      | Avoid contact with skin and eyes.  
|                      | Ensure adequate ventilation, especially in confined areas.  
|                      | Avoid inhalation of vapour or mist.  
|                      | Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
|                      | Immediately evacuate personnel to safe areas.  

| Environmental precautions | Do not flush into surface water or sanitary sewer system.  
|                          | Prevent further leakage or spillage if safe to do so.  
|                          | If the product contaminates rivers and lakes or drains inform respective authorities.  
|                          | Avoid release to the environment. Refer to special instructions/ Safety data sheets.  

| Methods for cleaning up | Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.  
|                         | Clean contaminated surface thoroughly.  

SECTION 7. HANDLING AND STORAGE

Handling

Handling | For personal protection see section 8.  
|          | Limit the stocks at work place.  
|          | Use only in well-ventilated areas.  
|          | Do not breathe vapours or spray mist.  
|          | Avoid contact with skin and eyes.  
|          | Do not spray on a naked flame or any incandescent material.  
|          | Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.  
|          | Take precautionary measures against static discharges.  
|          | Use appropriate container to avoid environmental contamination.  

Advice on protection against fire and explosion | Normal measures for preventive fire protection.  
|                                                | Vapours are heavier than air and may spread along floors.  

5 / 13
Vapours may form explosive mixtures with air. Keep away from heat and sources of ignition. Do not smoke. No sparking tools should be used. Electrical equipment should be protected to the appropriate standard.

Dust explosion class: not applicable

Storage
Requirements for storage areas and containers: Store in original container. BEWARE: Aerosol is pressurized. Keep away from heat. Keep away from direct sunlight. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Keep containers tightly closed in a dry, cool and well-ventilated place. Please observe the storage instructions for aerosols!

Advice on common storage: Incompatible with oxidizing agents. Keep away from food, drink and animal feedingstuffs. Do not store together with oxidizing and self-igniting products.

Other data: No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>List</th>
<th>Type:</th>
<th>Value</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>CA AB OEL</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>2009-04-30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA AB OEL</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>2006-11-29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA BC OEL</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>2006-11-29</td>
</tr>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>CA AB OEL</td>
<td>TWA</td>
<td>500 ppm</td>
<td>2009-04-30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA AB OEL</td>
<td>STEL</td>
<td>750 ppm</td>
<td>2009-04-30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA BC OEL</td>
<td>STEL</td>
<td>750 ppm</td>
<td>2009-04-30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA BC OEL</td>
<td>TWA</td>
<td>250 ppm</td>
<td>2006-11-29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA BC OEL</td>
<td>STEL</td>
<td>250 ppm</td>
<td>2006-11-29</td>
</tr>
</tbody>
</table>
# Material Safety Data Sheet

## Spray Adhesive

<table>
<thead>
<tr>
<th>CA QC OEL</th>
<th>TWA</th>
<th>500 ppm</th>
<th>1,190 mg/m³</th>
<th>2006-12-29</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA QC OEL</td>
<td>STEV</td>
<td>1,000 ppm</td>
<td>2,380 mg/m³</td>
<td>2006-12-29</td>
</tr>
</tbody>
</table>

**butane**

| CA AB OEL | TWA | 1,000 ppm | 2009-04-30 |
| CA BC OEL | TWA | 600 ppm | 2006-11-29 |
| CA BC OEL | STEL| 750 ppm | 2006-11-29 |

| CA QC OEL | TWA | 800 ppm | 1,900 mg/m³ | 2006-12-29 |
| CA ON OEL | TWA | 800 ppm | 2012-06-12 |

**heptane [and isomers]**

| CA BC OEL | TWA | 400 ppm | 2006-11-29 |
| CA BC OEL | STEL| 500 ppm | 2006-11-29 |

| CA QC OEL | TWA | 400 ppm | 1,640 mg/m³ | 2006-12-29 |
| CA QC OEL | STEV| 500 ppm | 2,050 mg/m³ | 2006-12-29 |

| CA AB OEL | TWA | 400 ppm | 1,640 mg/m³ | 2009-04-30 |
| CA AB OEL | STEL| 500 ppm | 2,050 mg/m³ | 2009-04-30 |

**methyl acetate**

| CA AB OEL | TWA | 200 ppm | 606 mg/m³ | 2007-01-01 |
| CA AB OEL | STEL| 250 ppm | 757 mg/m³ | 2007-01-01 |

| CA BC OEL | TWA | 200 ppm | 2006-11-29 |
| CA BC OEL | STEL| 250 ppm | 2006-11-29 |

| CA QC OEL | TWA | 200 ppm | 606 mg/m³ | 2006-12-29 |
| CA QC OEL | STEV| 250 ppm | 757 mg/m³ | 2006-12-29 |

---

**Engineering measures**

Provide sufficient air exchange and/or exhaust in work rooms.

**Eye protection**

Tightly fitting safety goggles

**Hand protection**

Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

**Skin and body protection**

Flame retardant antistatic protective clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Product contains low-boiling liquids. Respiratory
protective equipment must be air supplied respirators.

Hygiene measures:
- Handle in accordance with good industrial hygiene and safety practice.
- General industrial hygiene practice.
- Do not inhale aerosol.
- Avoid contact with skin, eyes and clothing.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Follow the skin protection plan.
- Wash contaminated clothing before re-use.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>aerosol</td>
</tr>
<tr>
<td>Colour</td>
<td>light yellow, clear</td>
</tr>
<tr>
<td>Odour</td>
<td>solvent-like</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>pH</td>
<td>not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>no data available</td>
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<tr>
<td>Boiling point/boiling range</td>
<td>not applicable</td>
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<tr>
<td>Vapour pressure</td>
<td>not applicable</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>no data available</td>
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<tr>
<td>Density</td>
<td>0.840 g/cm³</td>
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<tr>
<td>Water solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>no data available</td>
</tr>
</tbody>
</table>
Material Safety Data Sheet
Spray Adhesive

Volatile organic compounds (VOC) content: 53.5 %
388 g/l

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid: Heat, flames and sparks.

Materials to avoid: Oxidizing agents

Hazardous decomposition products:
- Carbon dioxide (CO2)
- Carbon monoxide

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

Hazardous reactions:
- If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
- Vapours may form explosive mixture with air.

Note: No decomposition if stored and applied as directed.

Vapours may cause drowsiness and dizziness.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

SECTION 11. TOXICOLOGICAL INFORMATION

- Carcinogenicity: No data is available on the product itself.
- Reproductive toxicity: No data is available on the product itself.
- Teratogenicity: No data is available on the product itself.
- Further information:
  - Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
  - Vapours may cause drowsiness and dizziness.

Component:
- Acetone: 67-64-1

- Skin irritation: Result: Repeated exposure may cause skin dryness or cracking.

- Eye irritation: Result: Irritation to eyes, reversing after 7 to
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21 days.

heptane [and isomers]  142-82-5
Acute oral toxicity: LD50 rat
Dose: > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity: LD50 rabbit
Dose: > 2,000 mg/kg
Method: OECD Test Guideline 402

Acute inhalation toxicity: LC50 rat
Dose: > 29.29 mg/l Exposure time: 4 h
Method: OECD Test Guideline 403

Skin irritation: rabbit
Result: irritating
Method: OECD Test Guideline 404

Eye irritation: rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

methyl acetate  79-20-9
Skin irritation: Result: Repeated exposure may cause skin dryness or cracking.

Eye irritation: Result: irritating

toluene  108-88-3
Acute oral toxicity: LD50 rat
Dose: > 5,000 mg/kg

Acute inhalation toxicity: LC50 rat
Dose: 49 mg/l Exposure time: 4 h

Skin irritation: Result: Irritating to skin.
Prolonged skin contact may defat the skin and produce dermatitis.

Reproductive toxicity: Suspected of damaging the unborn child. Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

SECTION 12. ECOLOGICAL INFORMATION

Volatile organic compounds (VOC) content : 53.5 %

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.
### Component:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Toxicity to fish:</th>
</tr>
</thead>
<tbody>
<tr>
<td>heptane [and isomers] 142-82-5</td>
<td>LC50</td>
<td>Dose: 5.738 mg/l Exposure time: 96 h</td>
</tr>
<tr>
<td></td>
<td>Calculation</td>
<td>Acute and prolonged toxicity for aquatic invertebrates:</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Species: Daphnia magna (Water flea) Dose: 1.5 mg/l Exposure time: 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxicity to algae:</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Species: Ceriodaphnia Dubia (water flea) Dose: 3.78 mg/l Exposure time: 48 h</td>
</tr>
<tr>
<td></td>
<td>NOEC</td>
<td>Species: Daphnia magna Dose: 0.97 mg/l Exposure time: 72 h Calculation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxicity to bacteria:</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Species: Bacteria Dose: 2.26 mg/l Exposure time: 48 h Calculation</td>
</tr>
<tr>
<td></td>
<td>NOEC</td>
<td>Species: Bacteria Dose: 5.057 mg/l Exposure time: 48 h Calculation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Toxicity to fish:</th>
</tr>
</thead>
<tbody>
<tr>
<td>toluene 108-88-3</td>
<td>LC50</td>
<td>Dose: 5.5 mg/l Exposure time: 96 h</td>
</tr>
<tr>
<td></td>
<td>No adverse effect has been observed in acute toxicity tests.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute and prolonged toxicity for aquatic invertebrates:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Species: Ceriodaphnia Dubia (water flea) Dose: 3.78 mg/l Exposure time: 48 h</td>
</tr>
<tr>
<td></td>
<td>Toxicity to algae:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Species: Chlorella vulgaris (Fresh water algae) Dose: 134 mg/l Exposure time: 3 h</td>
</tr>
</tbody>
</table>
SECTION 13. DISPOSAL CONSIDERATIONS

Adequate disposal: In accordance with local and national regulations. This material and its container must be disposed of as hazardous waste.

SECTION 14. TRANSPORT INFORMATION

DOT 49 CFR
ID No: UN 1950
Proper shipping name: Aerosols
Class: 2.1
Labels: 2.1
Emergency Response Guidebook Number: 126

TDGR
ID No: UN 1950
Proper shipping name: AEROSOLS
Class: 2.1
Labels: 2.1

ICAO/IATA-DGR
ID No: UN 1950
Proper shipping name: Aerosols, flammable
Class: 2.1
ICAO-Labels: 2.1
Packing instruction (cargo aircraft): 203
Packing instruction (passenger aircraft): 203
Packing instruction (passenger aircraft): Y203
Environmentally hazardous: no

IMDG-Code
ID No: UN 1950
Description of the goods: AEROSOLS
Class: 2.1
IMDG-Labels: 2.1
EmS Number 1: F-D
SECTION 15. REGULATORY INFORMATION

WHMIS Classification : A Compressed Gas
                        B5 Flammable aerosol
                        D2B Toxic Material Causing Other Toxic Effects
Compressed Gas
Flammable aerosol
Moderate skin irritant
Moderate eye irritant
Mild respiratory irritant

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16. OTHER INFORMATION

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared by : SAP Business Compliance Services GmbH
             Birlenbacher Str. 19
             D-57078 Siegen
             Germany
             Telephone: +49-(0)271-88072-0

Revision Date : 04/26/2013