

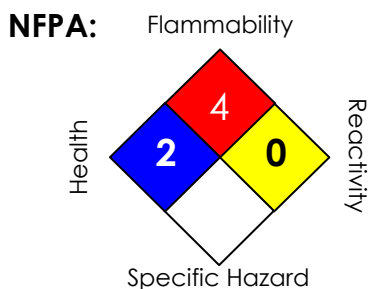
Material Safety Data Sheet

Spray Adhesive

Version 1.2

Revision Date 11/30/2014

Print Date 12/04/2014

**HMIS III:**

HEALTH	3*
FLAMMABILITY	4
PHYSICAL	0

0 = Insignificant, 1 = Slight,
2 = Moderate, 3 = High, 4 = Extreme

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Commercial Product Name : Spray Adhesive
Product code : 890.910055
SDS-Identcode : 10043488
Product Use Description : Adhesives
Company : Würth Canada Limited
345 Hanlon Creek Blvd
GUELPH, ON N1C 0A1
Canada
Telephone : +1 (905) 564 6225
Telefax : +1 (905) 564 3671
Responsible/issuing person : prodsafe@wuerth.com
Emergency telephone number : In case of emergency please contact: CANUTEC (5:00 pm - 8:00 am):
+1 (613) 996 6666
WÜRTH CANADA LIMITED (8:00 am - 5:00 pm):
+1 (905) 564 6225

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 containing a liquefied gas
Colour : light yellow, clear

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Odour : solvent-like
Odour - Control : No data available
parameters
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

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

Eyes : May cause eye irritation.

Chronic Exposure : This product contains a material that may cause adverse
reproductive effects.*

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.

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- 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

Component	CAS-No.	Weight percent- Weight percent
propane	74-98-6	>= 20 - < 25
acetone	67-64-1	>= 20 - < 25
butane	106-97-8	>= 15 - < 20
n-heptane	142-82-5	>= 5 - < 7
Heptane, branched, cyclic and linear	426260-76-6	>= 5 - < 7
methyl acetate	79-20-9	>= 5 - < 7
toluene	108-88-3	>= 0.2 - < 0.5

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

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vomiting. If a person vomits when lying on his back, place him in the recovery position.

SECTION 5. FIREFIGHTING MEASURES

- Form : Aerosol containing a liquefied gas
- 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.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

- 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.

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

Components	CAS-No.	List	Type:	Value	Update
propane	74-98-6	CA AB OEL	TWA	1,000 ppm	2009-04-30
		CA BC OEL	TWA	1,000 ppm	2006-11-29
		CA QC OEL	TWAEV	1,000 ppm 1,800 mg/m ³	2006-12-29
		CA ON OEL	TWA	1,000 ppm	2010-11-05
acetone	67-64-1	CA AB OEL	TWA	500 ppm 1,200	2009-04-30

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				mg/m ³	
		CA AB OEL	STEL	750 ppm 1,800 mg/m ³	2009-04-30
		CA BC OEL	TWA	250 ppm	2006-11-29
		CA BC OEL	STEL	500 ppm	2006-11-29
		CA QC OEL	TWAEV	500 ppm 1,190 mg/m ³	2006-12-29
		CA QC OEL	STEV	1,000 ppm 2,380 mg/m ³	2006-12-29
butane	106-97-8	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	TWAEV	800 ppm 1,900 mg/m ³	2006-12-29
		CA ON OEL	TWA	800 ppm	2012-06-12
n-heptane	142-82-5	CA BC OEL	TWA	400 ppm	2006-11-29
		CA BC OEL	STEL	500 ppm	2006-11-29
		CA QC OEL	TWAEV	400 ppm 1,640 mg/m ³	2006-12-29
		CA QC OEL	STEV	500 ppm 2,050 mg/m ³	2006-12-29
		CA AB OEL	TWA	400 ppm 1,640 mg/m ³	2009-04-30
		CA AB OEL	STEL	500 ppm 2,050 mg/m ³	2009-04-30
Heptane, branched, cyclic and linear	426260-76-6	CA AB OEL	TWA	400 ppm 1,640 mg/m ³	2009-04-30
		CA AB OEL	STEL	500 ppm 2,050 mg/m ³	2009-04-30
methyl acetate	79-20-9	CA AB OEL	TWA	200 ppm 606 mg/m ³	2007-01-01
		CA AB OEL	STEL	250 ppm 757 mg/m ³	2007-01-01
		CA BC OEL	TWA	200 ppm	2006-11-29
		CA BC OEL	STEL	250 ppm	2006-11-29
		CA QC OEL	TWAEV	200 ppm 606 mg/m ³	2006-12-29
		CA QC OEL	STEV	250 ppm 757 mg/m ³	2006-12-29
toluene	108-88-3	CA AB OEL	TWA	50 ppm 188 mg/m ³	2007-01-01
		CA BC OEL	TWA	20 ppm	2009-02-09
		CA QC OEL	TWAEV	50 ppm 188 mg/m ³	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

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- 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

- Form : Aerosol containing a liquefied gas
- Colour : light yellow, clear
- Odour : solvent-like
- Lower explosion limit : No data available
- Upper explosion limit : No data available
- pH : Not applicable
- Freezing point : No data available
- Boiling point/boiling range : Not applicable
- Vapour pressure : Not applicable
- Relative vapour density : No data available
- Density : 0.840 g/cm³

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Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
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 (CO ₂) 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.
		Note: No decomposition if stored and applied as directed.
		Vapours may form explosive mixtures with air. 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.

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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

Acute oral toxicity: LD50 Rat
Dose: 5,800 mg/kg

Acute dermal toxicity: LD50 Rabbit
Dose: > 7,426 mg/kg

Acute inhalation toxicity: LC50 Rat
Dose: 76 mg/l/Exposure time: 4 h

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

Skin irritation: Guinea pig
Result: No skin irritation

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

Carcinogenicity: Animal testing did not show any carcinogenic effects.

Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Reproductive toxicity: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

butane

106-97-8

Acute inhalation toxicity: LC50 Mouse
Dose: 1,237 mg/l 520400 ppm
Exposure time: 2 h

n-heptane

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

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		Method: OECD Test Guideline 405
methyl acetate	79-20-9	<u>Acute oral toxicity</u> : LD50 Rat Dose: 6,482 mg/kg Method: OECD Test Guideline 401 <u>Acute dermal toxicity</u> : LD50 Rat Dose: > 2,000 mg/kg Method: OECD Test Guideline 402 <u>Acute inhalation toxicity</u> : LC0 Rabbit Dose: 49.2 mg/l/Exposure time: 4 h Method: OECD Test Guideline 403 <u>Skin irritation</u> : Result: Repeated exposure may cause skin dryness or cracking. <u>Eye irritation</u> : Result: irritating
toluene	108-88-3	<u>Acute oral toxicity</u> : LD50 Rat Dose: 5,580 mg/kg <u>Acute dermal toxicity</u> : LD50 Rabbit Dose: ca. 12,267 mg/kg <u>Acute inhalation toxicity</u> : LC50 Rat Dose: >= 28.1 mg/l/Exposure time: 4 h Method: OECD Test Guideline 403 <u>Skin irritation</u> : Rabbit Result: irritating <u>Eye irritation</u> : Rabbit Result: No eye irritation Method: OECD Test Guideline 405 <u>Reproductive toxicity</u> : Suspected human reproductive toxicant, Suspected of damaging the unborn child.

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:

acetone

67-64-1

Toxicity to fish:

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LC50
Species: Pimephales promelas (fathead minnow)
Dose: 6,210 - 8,120 mg/l
Exposure time: 96 h

Acute and prolonged toxicity for aquatic invertebrates:

EC50
Species: Daphnia pulex (Water flea)
Dose: 8,800 mg/l
Exposure time: 48 h

Toxicity to algae:

NOEC
Species: Microcystis aeruginosa
Dose: 530 mg/l
Exposure time: 8 d

Toxicity to bacteria:

Respiration inhibition of activated sludge EC50
Species:
Dose: 61.15 mg/l
Exposure time: 30 min
Method: ISO 8192

n-heptane

142-82-5

Toxicity to fish:

LC50
Species:
Dose: 5.738 mg/l
Exposure time: 96 h
Calculation

Acute and prolonged toxicity for aquatic invertebrates:

EC50
Species: Daphnia magna (Water flea)
Dose: 1.5 mg/l
Exposure time: 48 h

Toxicity to algae:

EC50
Species:
Dose: 4.338 mg/l
Exposure time: 72 h
Calculation

Toxicity to algae:

NOEC
Species:
Dose: 0.97 mg/l
Exposure time: 72 h
Calculation

Toxicity to bacteria:

EC50
Species: Bacteria
Dose: 22.6 mg/l
Exposure time: 48 h
Calculation

Toxicity to bacteria:

NOEC
Species: Bacteria

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		Dose: 5.057 mg/l Exposure time: 48 h Calculation
methyl acetate	79-20-9	<u>Toxicity to fish:</u> LC50 Species: Brachydanio rerio (zebrafish) Dose: 250 - 350 mg/l Exposure time: 96 h <u>Acute and prolonged toxicity for aquatic invertebrates:</u> EC50 Species: Daphnia magna (Water flea) Dose: 1,026.7 mg/l Exposure time: 48 h <u>Toxicity to algae:</u> EC50 Species: Desmodesmus subspicatus (Scenedesmus subspicatus) Dose: > 120 mg/l Exposure time: 72 h <u>Toxicity to bacteria:</u> EC50 Species: Pseudomonas putida Dose: 6,000 mg/l Exposure time: 16 h
toluene	108-88-3	<u>Toxicity to fish:</u> LC50 Species: Oncorhynchus kisutch (coho salmon) Dose: 5.5 mg/l Exposure time: 96 h <u>Acute and prolonged toxicity for aquatic invertebrates:</u> EC50 Species: Ceriodaphnia dubia (water flea) Dose: 3.78 mg/l Exposure time: 48 h <u>Toxicity to algae:</u> EC50 Species: Chlorella vulgaris (Fresh water algae) Dose: 134 mg/l Exposure time: 3 h <u>Toxicity to bacteria:</u> EC50 Species: Bacteria Dose: 84 mg/l Exposure time: 24 h

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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 : 126
Guidebook Number

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
(n-heptane)
Class : 2.1
IMDG-Labels : 2.1
EmS Number 1 : F-D
EmS Number 2 : S-U
Marine pollutant : yes

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SECTION 15. REGULATORY INFORMATION

WHMIS Classification : B5 Flammable aerosol
D2A Very Toxic Material Causing Other Toxic Effects
D2B Toxic Material Causing Other Toxic Effects
Extremely flammable aerosol.
Reproductive hazard
Severe skin 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.

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