



# A NEW FORCE IN CHEMICAL MANUFACTURING

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## SAFETY DATA SHEET

ISSUED AUGUST, 2018 (VALID 5 YEARS FROM DATE OF ISSUE)

### NC277 VOC Free Liquid Flux

#### Section 1 - Identification of The Material and Supplier

Chemtools Pty Ltd  
Unit 2/14-16 Lee Holm Road  
St Marys NSW 2760

Phone: 1300 738 250 (business hours)  
Fax: 02 9623 3670  
www.chemtools.com.au

**Chemical nature:** Water solution of ingredients.  
**Product Name:** NC277 VOC Free Liquid Flux  
**Product Use:** N clean liquid flux.  
**Creation Date:** August, 2018  
**Poisons Information Centre:** Phone 13 1126 from anywhere in Australia

#### Section 2 - Hazards Identification

##### Statement of Hazardous Nature

This product is classified as: T, Toxic. Hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

**SUSMP Classification:** None allocated.

**ADG Classification:** None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

**UN Number:** None allocated



##### GHS Signal word: WARNING

Reproductive Toxicity Category 2

##### HAZARD STATEMENT:

H361: Suspected of damaging fertility or the unborn child.

##### PREVENTION

P102: Keep out of reach of children.

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P262: Do not get in eyes, on skin, or on clothing.

P280: Wear protective gloves, protective clothing and eye or face protection.

##### RESPONSE

P352: Wash with plenty of soap and water.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P308+P313: If exposed or concerned: Get medical advice.

P332+P313: If skin irritation occurs: Get medical advice.

P370+P378: Not combustible. Use extinguishing media suited to burning materials.

##### STORAGE

P405: Store locked up.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

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Issued by: Chemtools Pty Ltd

Phone: 1300 738 250 (business hours)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

**DISPOSAL**

P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

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**Emergency Overview**

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**Physical Description & Colour:** Colourless liquid.

**Odour:** No odour.

**Major Health Hazards:** may impair fertility, may cause harm to unborn children.

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**Section 3 - Composition/Information on Ingredients**

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Ingredients	CAS No	Conc,%	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Adipic acid	124-04-9	<3	not set	not set
2-Furanmethanol, tetrahydro-	97-99-4	<3	not set	not set
Other ingredients said to be not hazardous		to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

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**Section 4 - First Aid Measures**

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**General Information:**

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin Contact:** Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

**Eye Contact:** No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

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**Section 5 - Fire Fighting Measures**

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**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

This product is likely to decompose only after heating to dryness, followed by further strong heating.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Not combustible. Use extinguishing media suited to burning materials.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

**Flash point:** Does not burn.

**Upper Flammability Limit:** Does not burn.

**Lower Flammability Limit:** Does not burn.

**Autoignition temperature:** Not applicable - does not burn.

**Flammability Class:** Does not burn.

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**Section 6 - Accidental Release Measures**

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**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include no specific manufacturer recommendations. Use impermeable gloves with care. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product.

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However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

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## Section 7 - Handling and Storage

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**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Store packages of this product in a cool place. Make sure that containers of this product are kept tightly closed. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

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## Section 8 - Exposure Controls and Personal Protection

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The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

### SWA Exposure Limits

### TWA (mg/m<sup>3</sup>)

### STEL (mg/m<sup>3</sup>)

Exposure limits have not been established by SWA for any of the known significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used.

**Skin Protection:** You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product for lengthy periods. See below for suitable material types.

**Protective Material Types:** There is no data that enables us to recommend any type except that it should be impermeable.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

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## Section 9 - Physical and Chemical Properties:

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<b>Physical Description &amp; colour:</b>	Colourless liquid.
<b>Odour:</b>	No odour.
<b>Boiling Point:</b>	Approximately 100°C at 100kPa.
<b>Freezing/Melting Point:</b>	No specific data. Liquid at normal temperatures.
<b>Volatiles:</b>	Not available.
<b>Vapour Pressure:</b>	No data.
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	1.0163 (temperature not stated)
<b>Water Solubility:</b>	Not available.
<b>pH:</b>	2.62
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Coeff Oil/water Distribution:</b>	No data
<b>Autoignition temp:</b>	Not applicable - does not burn.

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## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed.

**Incompatibilities:** No particular Incompatibilities.

**Fire Decomposition:** This product is likely to decompose only after heating to dryness, followed by further strong heating. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

## Section 11 - Toxicological Information

### Local Effects:

**Target Organs:** There is no data to hand indicating any particular target organs.

2-furanmethanol, tetrahydro- is a SWA Class 2 Reproductive risk, may impair fertility.

Adverse symptoms from contact with this product may include the following:

- reduced foetal weight
- increase in foetal deaths
- skeletal malformations

## Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Adipic Acid	No risk phrases at concentrations found in this product
<ul style="list-style-type: none"> <li>• Eye damage – category 1</li> <li>• Specific target organ toxicity (single exposure) – category 3</li> </ul>	
2-furanmethanol, tetrahydro-	No risk phrases at concentrations found in this product
<ul style="list-style-type: none"> <li>• Reproductive toxicity – category 1B</li> <li>• Eye irritation – category 2</li> </ul>	
<b>Adipic Acid:</b> LD <sub>50</sub> Oral, Rat 5050mg/kg	LD <sub>50</sub> Dermal, Rabbit = >7940mg/kg
<b>2-furanmethanol, tetrahydro-:</b>	LD <sub>50</sub> Oral, Rat 1600mg/kg

## Potential Health Effects

### Inhalation:

**Short Term Exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

### Skin Contact:

**Short Term Exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be irritating, but is unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

### Eye Contact:

**Short Term Exposure:** This product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

### Ingestion:

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. Available data shows that this product is not harmful. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

### Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

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## Section 12 - Ecological Information

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Insufficient data to be sure of status. Expected to not be an environmental hazard.

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## Section 13 - Disposal Considerations

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**Disposal:** Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.

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## Section 14 - Transport Information

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**UN Number:** This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

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## Section 15 - Regulatory Information

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**AICS:** We are unable to verify that all of the ingredients in this product are compliant with NICNAS regulations. There are several possible reasons why this may occur. If you have any reason to be concerned about this, we suggest you call us on the number below.

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## Section 16 - Other Information

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**This SDS contains only safety-related information. For other data see product literature.**

### Acronyms:

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (Feb 2016)

## SAFETY DATA SHEET