MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ChemTools Flux Remover GP
Product Type: Flux solvent for industrial use.
Company Address: ChemTools Pty. Ltd., PO Box4319, Penrith, NSW 2750
Ph 02 4635 3746
EMERGENCY PHONE: Australia: Poisons Information Centre 13 1126
International: Infotrac (708) 918 1900

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS #	%	NOHSC TWA	NOHSC STEL
n-hexane	110-54-3	30 - 60	20ppm 72mg/m^3	---
propan-2-ol	67-63-0	10 - 30	400ppm 983mg/m^3	500ppm 1,230mg/m^3
1-methoxy-2-propanol	107-98-2	10 - 30	100ppm 369 mg/m^3	150ppm 553 mg/m^3
cyclohexane	110-82-7	<10	100ppm 350 mg/m^3	300ppm 1050 mg/m^3
2-methyl pentane	107-83-5	<10	not available	

3. HAZARDS IDENTIFICATION

Hazard Classification: Dangerous Goods. Highly flammable
Risk Phrases: R11 – Highly flammable
R22 – Harmful if swallowed
R36/38 – Irritating to eyes and skin.
R67 – Vapours may cause drowsiness and dizziness.
Safety Phrases: S20 – When using do not eat or drink
S21 – When using do not smoke
S51 – Use only in well ventilated areas.
S24/25 – Avoid contact with skin and eyes.
Relevant routes of exposure: Skin, Inhalation, Eyes
Potential Health Effects
Inhalation: May cause respiratory tract irritation. High concentrations of vapours may cause headache, fatigue, drowsiness and dizziness.
Skin contact: May cause allergic skin reaction. May cause skin irritation. Product has a defatting effect on skin. Prolonged contact may cause dryness of skin.
Eye contact: Contact with eyes will cause irritation.
Ingestion: Harmful. May cause lung damage if swallowed.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If symptoms develop and persist, get medical attention.
Skin contact: Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse.
Get medical attention if symptoms occur.
Eye contact: Check for and remove any contact lenses. Immediately flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.
Ingestion: Do not induce vomiting. Rinse mouth thoroughly. Loosen any tight clothing. Keep individual calm. Obtain medical attention.

5. FIRE-FIGHTING MEASURES

Flash point: 0ºC Cleveland closed cup
Autoignition temperature: >200ºC
Flammable/Explosive limits-lower %: 0.7%
Flammable/Explosive limits-upper %: 8.3%
Extinguishing media: Foam, dry chemical or carbon dioxide.
Special fire fighting procedures: None
Unusual fire or explosion hazards: None
Hazardous combustion products: Oxides of carbon. Irritating organic vapours. Keep run-off water out of sewers and water sources.
Hazchem Code: 2[Y]E

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Extinguish all ignition sources. Ventilate well. Use approved respirator if air contamination is above accepted level**.** Prevent product from entering drains or open waters.

Clean-up methods: Soak up with inert absorbent. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapour and mist. Wash thoroughly after handling.

Storage: For safe storage, store at or below 38°C (100°F). Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

Incompatible products: Refer to Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: No specific ventilation requirements noted, but forced ventilation may still be required if concentrations exceed occupational exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Skin protection: Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene gloves. butyl rubber gloves. Natural rubber gloves.

Eye/face protection: Safety goggles or safety glasses with side shields.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.
Colour: Clear, colourless.
Odour: Organic solvents.
pH: Not available
Boiling point/range: >80ºC.
Melting point/range: Not available
Specific gravity: 0.78 at 20ºC.
Vapour density: >1
Evaporation rate: Not available
Solubility in water: Insoluble.

10. STABILITY AND REACTIVITY

Stability: Stable.
Hazardous polymerization: Will not occur.
Hazardous decomposition products: Oxides of carbon.
Incompatibility: Strong oxidizers. Strong reducing agents.
Conditions to avoid: See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

11. TOXICOLOGICAL INFORMATION

Product toxicity data:

n-hexane	Oral: LD_{50} 28,710 mg/Kg (rat). Irritation eye: 10 mg mild (rabbit). Investigated as a tumorigen, mutagen and reproductive effector. Carcinogenic effects: None by IARC
Isopropyl alcohol	Oral: LD_{50} 5,045 mg/Kg (rat). Skin: LD_{50} 12.8g/Kg (rabbit) Inhalation LC_{50}: 16,000ppm/8hr (rat) Investigated as a tumorigen, mutagen, reproductive effector. Carcinogenic effects: IARC Category 3
1-methoxy-2-propanol	Oral: LD_{50} 5,660 mg/Kg (rat). Skin: LD_{50} 13.0g/Kg (rabbit) Inhalation LC_{50}: 10,000ppm/5hr (rat) Investigated as a reproductive effector Carcinogenic effects: None by IARC
Cyclohexane	Oral: LD_{50} >2,000 mg/Kg (rat). Skin: LD_{50} >2g/Kg (rat) Inhalation LC_{50}: >20mg/L/4hr (rat) Investigated as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecological information: Dangerous to the environment if discharged into watercourses.

13. DISPOSAL CONSIDERATIONS

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

14. TRANSPORT INFORMATION

Proper shipping name: Flammable Liquid, N.O.S. (n-hexane, propan-2-ol)
UN No.: 1208
Hazard class or division: 3[Y]E
Packing group: II
International Air Transportation (ICAO/IATA):
Proper shipping name: Flammable Liquid, N.O.S. (n-hexane, propan-2-ol)
Hazard class or division: 3[Y]E
Identification number: 1208
Packing group: II
Water Transportation (IMO/IMDG):
Proper shipping name: Flammable Liquid, N.O.S. (n-hexane, propan-2-ol)
Hazard class or division: 3[Y]E
Identification number: 1208
Packing group: II.
Marine pollutant: No.

15. REGULATORY INFORMATION

Poisons Schedule (SUSDP): Not Listed.
ADG Code: Class 3 Dangerous Good – Flammable Liquid
NOHSC: Not hazardous.

16. OTHER INFORMATION

Abbreviations/Acronyms:

NOHSC – National Occupational Health and Safety Commission.
NIOSH – National Institute of Occupational Health and Safety.
ACGIH – American Conference of Government Industrial Hygienists.
SUSDP – Standard for the Uniform Scheduling of Drugs and Poisons.
TWA – Time Weighted Average
TLV – Threshold Limit Value.
STEL – Short Term Exposure Limit
PEL – Permissible Exposure Limit
SUSDP – Standard for the Uniform Scheduling of Drugs & Poisons.
ADG – Australian Dangerous Goods
IARC – International Agency for Research on Cancer

DISCLAIMER: