

MATERIAL SAFETY DATA SHEET

ERG UFA UNIVERSAL FLUSHING AGENT

Date of Issue August 2011

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2 PRODUCT AND IDENTIFICATION

PRODUCT NAME: ERG UFA Universal Flushing Agent

MANUFACTURER CODE: ERG UFA

UN Number 1268

Hazchem Code 3(Y) E

Worksafe Classification: Harmful by Worksafe Criteria

3 COMPOSITION / INFORMATION ON INGREDIENTS

GENERIC COMPOSITION: PETROLEUM HYDROCARBONS

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

Substance Name	Wt %	EU Classification
LIGHT ALIPHATIC PETROLEUM SOLVENT (64742-89-8)	80-90%	F;R11 Xn;R65 Xi;R38 R52/53
TOLUENE (108-88-3)	5-8%	F; R11 Xn; R20
LIGHT FLUSHING OIL	10%	

THIS PRODUCT CONTAINS THE FOLLOWING COMPONENT(S):

N-HEXANE (110-54-3)	2-4%	F;R11 Xn;R48/20
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Notes: EC Symbol(s); F Highly flammable, Xn Harmful, Xi Irritant

See Section 15 for European Label Information.

4 HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE:

Overexposure to n-Hexane may cause effects on the peripheral nerves, resulting in weakness or numbness of lower limbs. Prolonged overexposure may result in damage to the central nervous system. Low viscosity material-if swallowed may enter the lungs and cause lung damage. Skin irritation, respiratory irritation, dizziness, nausea, loss of consciousness. Prolonged, repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis.

5 FIRST AID MEASURES

EYE CONTACT:

Flush thoroughly with water. If irritation persists, call a doctor.

SKIN CONTACT:

Wash contact areas with water. Remove contaminated clothing. Launder contaminated clothing before re-use.

INHALATION:

Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with bag-valve-mask device or use mouth-to-mouth resuscitation.

INGESTION:

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIANS:

Material if aspirated into the lungs may cause chemical pneumonitis. Treat appropriately.

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6 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA:

Foam, dry chemical, CO₂ and water fog.

SPECIAL FIRE FIGHTING PROCEDURES:

Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop leak. Water spray may be used to flush Spills away from exposures. Prevent run off from fire control or dilution from entering waterways, sewers or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT:

For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: EXTREMELY FLAMMABLE.

Vapour accumulation could flash and/or explode if in contact with open flame.

Flash Point C (F): -22°(-8°) (ASTM D-56). Flammable limits -LEL 1.0%, UEL 6.0%.

NFPA HAZARD ID: Health: 1, Flammability: 3, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.

7 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES:

Report spills as required to appropriate authorities such as the local Environmental Health Officer or Fire Brigade. If spills are likely to enter any drain, waterway or ground water, contact the Area Water Authority. In case of accident or road spill, contact the Police and Fire Brigade and, if appropriate, the Area Water Authority.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:

Eliminate all ignition sources. Contain and adsorb on suitable chemical absorbent material, etc. Shovel up and dispose of at an appropriate licensed waste disposal site in accordance with current applicable laws and regulations and product characteristics at time of disposal. Remove leaking containers to detached area.

ENVIRONMENTAL PRECAUTIONS:

Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

8 HANDLING AND STORAGE

HANDLING:

Avoid contact with skin. Avoid inhalation of vapours or mists. Use in well ventilated area away from all ignition sources. Avoid sparking conditions. Ground and bond all transfer equipment.

STORAGE:

Drums must be grounded and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters. Store away from all ignition sources in a cool area equipped with an automatic sprinkling system. Outside or detached storage preferred. Storage containers should be grounded and bonded.

See Section 15 for Regulatory information when storing this product.

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9 EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

Use in well ventilated area with local exhaust ventilation. Ventilation required and equipment must be explosion proof. Use away from all ignition sources.

RESPIRATORY PROTECTION:

Approved respiratory protective equipment **MUST** be used when vapour or mist concentrations exceed applicable standards.

EYE PROTECTION:

Normal industrial eye protection practices should be employed.

SKIN PROTECTION:

Impervious gloves should be worn.

EXPOSURE LIMITS:

---TWA--- ----STEL--- NOTE

Substance Name (CAS-No.) Source ppm mg/m³ ppm mg/m³

TOLUENE (108-88-3) WNES 100 377 N-HEXANE (110-54-3)

n-Hexane WNES 50 176

Other Isomers WNES 500 1760 1000 3500

WNES = Worksafe Australia National Exposure Standard

NOTE: Limits shown for guidance only. Follow applicable regulations.

PRODUCT EXPOSURE LIMIT: 5.00 5 mg/m³ is suggested for oil mist (NOSHC)

10 PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below.

PHYSICAL STATE: Liquid

COLOUR: Clear / straw

ODOUR: Mild

ODOUR THRESHOLD (ppm): NE

pH: NA

Boiling Point C (F): 55°(131°)

Melting Point C (F): NA

Flash Point C(F): -22°(-8°) (ASTM D-56)

FLAMMABILITY: NE

AUTO FLAMMABILITY: NE

EXPLOSIVE PROPERTIES: NA

OXIDIZING PROPERTIES: NA

Vapour Pressure-mm Hg 20 C: <35.0

VAPOUR DENSITY: 4.8

EVAPORATION RATE: NE

Relative Density, 15/4 C: 0.694

Solubility in Water: Negligible

PARTITION COEFFICIENT: NE

Viscosity at 40° C, cSt: <7.0

Viscosity at 100° C, cSt: NE

Pour Point C: NE

FREEZING POINT C(F): NE

NA = Not Applicable, NE = Not Established, D = Decomposes

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11 STABILITY AND REACTIVITY

STABILITY (Thermal, Light, etc.): Stable.
CONDITIONS TO AVOID: Heat, sparks, flame and build up of static electricity.
INCOMPATIBILITY (Materials to Avoid): Strong oxidisers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.
HAZARDOUS POLYMERISATION: Will not occur.

12 TOXICOLOGICAL DATA

ACUTE TOXICOLOGY

ORAL TOXICITY: Practically non-toxic (LD50: greater than 2000 mg/kg).
Based on testing of similar products and/or the components.
DERMAL TOXICITY: Practically non-toxic (LD50: greater than 2000 mg/kg).
Based on testing of similar products and/or the components.
INHALATION TOXICITY: Harmful Based on testing of similar products and/or the components.
EYE IRRITATION: Practically non-irritating.
(Draize score: greater than 6, but 15 or less). Based on testing of similar products and/or the components.
SKIN IRRITATION: Irritant. (Primary Irritation Index: 3 or greater, but less than 5). Based on testing of similar products and/or the components.

GENETIC TOXICOLOGY (SUMMARY)

Overall negative in a series of assays on similar materials.

NEUROTOXICOLOGY (SUMMARY)

This material contains n-Hexane which has been reported to cause peripheral neuropathy.

REPRODUCTIVE TOXICOLOGY (SUMMARY)

No adverse effects in teratogenic studies with similar materials at 400 ppm.

CHRONIC TOXICOLOGY (SUMMARY)

Chronic inhalation studies with rats exposed to chemicals, which may be components of this solvent, resulted in kidney tumours in male rats only. These effects are not considered relevant to humans. Certain straight run middle distillates have been found to produce skin tumours in laboratory studies, but these have usually been associated with a high level of irritation. Tests determined that the irritation produced the tumours. Therefore, if precautions outlined in this bulletin are followed to minimise repeated or prolonged skin contact which could cause irritation, these oils should pose no carcinogenic hazard to humans. Prolonged, repeated skin contact with low viscosity materials may de fat the skin resulting in possible irritation and dermatitis.

13 ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

14 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

The product is suitable for processing by an approved recycling facility or can be disposed of at any licensed waste disposal site. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

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15 TRANSPORT INFORMATION

AUSTRALIAN ACTDG:

Shipping Name: Petroleum Distillates, N.O.S.
(Contains LIGHT ALIPHATIC PETROLEUM SOLVENT & TOLUENE)

UN Number: 1268
HAZCHEM Code: 3(Y)E
IMO:
HAZARD CLASS & DIV: 3.1
PACKING GROUP: PG II
LABEL(s): Flammable Liquid
MARPOL III STATUS: NA
ICAO/IATA
SUBSIDIARY RISK: NA

16 REGULATORY INFORMATION

Governmental Inventory Status: All components comply with European EINECS/ELINCS, US TSCA and Australian AICS.

Australian Classifications:

UN Number: 1268
HAZCHEM Code: 3(Y)E
Dangerous Goods Class/Subsidiary Risk: 3
Packaging Group: PG II
AS 1940 Class: PGII
Poisons Schedule: S5

EC Labelling:

Symbol: F Xn Highly flammable, Harmful.

Risk Phrase(s): R11-48/20-65-38.

Highly flammable. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Harmful: may cause lung damage if swallowed. Irritating to skin.

Safety Phrase(s): S9-16-24/25-51-62.

Keep container in a well ventilated place. Keep away from sources of ignition - No Smoking.

Avoid contact with skin and eyes. Use only in well ventilated areas.

If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Contains: Low Boiling Point Naphtha; n-Hexane.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
TOLUENE	108-88-3	6
N-HEXANE (Component analysis)	110-54-3	6
LIGHT ALIPHATIC PETROLEUM SOLVENT	64742-89-8	6

REGULATORY LISTS SEARCHED

1=IARC 1 2=IARC 2A 3=IARC 2B 4=NTP CARC 5=NTP SUS

6=ACGIH 7=ACGIH CARC 8=ACGIH SUS

CARC=CARCINOGEN; SUS=SUSPECTED CARCINOGEN; TERAT=TERATOGENIC

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17 OTHER INFORMATION

USE: SOLVENT

NOTE: ERG PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

This MSDS meets Worksafe Australia accepted format requirements.

SYNONYM TRADE NAMES: ERG - UFA

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Date of last Review August 2011