

SECTION 1 – CHEMICAL IDENTIFICATION

This SDS refers to the following VKIT product codes:

VSOL-GC100 VKIT GC FID Standards Kit
VSOL-GC99 VKIT GC Headspace Standards Kit
V5-3012 and **V5-3022** GC-FID Standards Kit
V5-3112 and **V5-3122** GC-FID/TCD Standards Kit

SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

n-Tetradecane and n-Hexadecane in n-Hexane in concentrations from zero to approximately 0.16 % w/v
 Each glass ampoule contains approximately 1.5 mL

Standard	Conc. in hexane % w/v		
	n-Tetradecane	n-Hexadecane	n-Hexane
VSOL-GC100/1 GC-FID Solution 1	0.000 %	0.025 %	99.975 %
VSOL-GC100/2 GC-FID Solution 2	0.002 %	0.025 %	99.973 %
VSOL-GC100/3 GC-FID Solution 3	0.010 %	0.025 %	99.965 %
VSOL-GC100/4 GC-FID Solution 4	0.040 %	0.025 %	99.935 %
VSOL-GC100/5 GC-FID Solution 5	0.080 %	0.025 %	99.895 %
VSOL-GC100/6 GC-FID Solution 6	0.120 %	0.025 %	99.855 %
VSOL-GC100/7 GC-FID Solution 7	0.160 %	0.025 %	99.815 %
VSOL-GC99 GC Headspace Standard	0.000 %	0.000 %	100.000 %

CAS #	Name
629-59-4	n-Tetradecane
544-76-3	n-Hexadecane
110-54-3	n-Hexane

SECTION 3 – HAZARDS IDENTIFICATION

Potential Health Effects

Eye: Vapour or mist is irritating to the eyes. Contamination of the eyes should be treated by immediate and prolonged irrigation with copious amounts of water by separating the eyelids with fingers. Contact physician.

Skin: Causes skin irritation. In case of contact, immediately wash skin with soap and copious amounts of water. Remove and wash contaminated clothing promptly.

Ingestion: - Harmful if swallowed. If ingested, wash out mouth with water. Call "Poison Control Centre" for assistance. Contact Physician immediately.

Inhalation: - Harmful if inhaled. Vapour or mist is irritating to the mucous membranes and upper respiratory tract. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. If inhaled remove to fresh air. If breathing is difficult give oxygen. Contact Physician.

Chronic: - This chemical is an eye and mucous membrane irritant and central nervous system depressant. An acute exposure causes Irritation, gastrointestinal tract discomfort and narcosis.

SECTION 4 – FIRST AID MEASURES

Eye contact – If the substance has entered the eyes, wash out with water or saline solution for at least 15 minutes. Obtain medical attention.

Skin contact – In the case of skin contact, wash the splashed surface with large quantities of running water. Remove contaminated clothing and wash before re-use. In severe cases, obtain medical attention.

Ingestion – If the chemical has been confined to the mouth, give large quantities of water as a mouthwash – ensure mouthwash is not swallowed. If the chemical has been swallowed, wash mouth out thoroughly with water and give about 250 mL to dilute it in the stomach. In severe cases, obtain medical attention.

Inhalation – Remove from exposure, rest and keep warm. In severe cases, obtain medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

General Information: - If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Extremely flammable liquid and vapour. Vapour may cause flash fire. Vapours are heavier than air and may travel to a source of ignition and flash back. Vapours can spread along the ground and collect in low or confined areas.

Extinguishing Media: - Use dry chemical, carbon dioxide, or appropriate foam. Water may be ineffective because it will not cool material below its flash point.

Special Fire Fighting Procedures: Wear full protective clothing and self-contained positive pressure breathing apparatus certified by NIOSH, when fighting chemically related fires.

Unusual Fire and Explosion Hazards: Volatile and highly flammable.

Vapour may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal protection – Wear anti-splash eye protection and gloves.
Spillages – Shut off all ignition sources and evacuate the area.
Small spillages may be washed to drain with large amounts of water as there are no perceived adverse environmental effects from this quantity.
Otherwise absorb spill onto sand or other inert non-combustible absorbent material. Transfer to a closable salvage container and arrange for specialist disposal.
Clean-up procedures – Ventilate area to dispel residual vapour.

SECTION 7 – HANDLING AND STORAGE

Handling precautions – Wear eye protection, gloves and protective clothing. Take precautions against static discharge.
Storage precautions – Store at between 4-25°C. Keep well closed and protected from direct sunlight and moisture. Store in a suitable flameproof cabinet when not in use.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering controls:

Adequate ventilation is required to protect personnel from exposure to chemical vapours exceeding PEL to minimize fire hazards.
Emergency eye wash fountains should be available in the vicinity of any possible exposure.

Personal protective equipment:

Eyes: Safety glasses are considered minimum protection. Chemical safety goggles or face shield may be necessary depending on quantity of material and conditions of use. Emergency eye wash fountains should be available in the vicinity of any possible exposure.

Skin: Chemical-resistant protective gloves and clothing are recommended. The choice of protective gloves or clothing must be based on chemical resistance and other user requirements. Generally, BUNA-N offers acceptable chemical resistance. Individuals who are acutely specifically sensitive to this chemical may require additional protective clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: colourless liquid
Odour: with a mild gasoline-like odour.
Specific Gravity: (H₂O =1): 0.659
Melting Point: -95 °C
Evaporation Rate (n-butyl acetate =1): >1
Boiling Point: 68.7 °C
Vapour pressure: 124 mmHg at 20 °C
Vapour density (Air =1) : 3.0
Solubility in water: Insoluble.

SECTION 10 – STABILITY AND REACTIVITY

Stable.
Conditions to avoid: Heat sparks, open flame, open containers and poor ventilation.
Incompatibility (Materials to Avoid): Oxidizing agents.
Hazardous decomposition or by-products: Incomplete combustion may generate carbon monoxide and other toxic materials.
Hazardous Polymerisation: will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

SECTION 12 – ECOLOGICAL INFORMATION

No environmental hazard is anticipated, provided that the material is handled and disposed of with due care and attention.

SECTION 13 – DISPOSAL CONSIDERATIONS.

Dispose of in a manner consistent with local and regional regulations.

SECTION 15 – REGULATORY INFORMATION

Classification and Symbol – HIGHLY FLAMMABLE (F); IRRITANT (Xi)
Risk phrases –
R11 Highly flammable
R36 Irritating to eyes
R66 Repeated exposure may cause skin dryness or cracking
R67 Vapours may cause drowsiness and dizziness

Safety phrases –

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition. No smoking.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.

EEC No: 200-662-2

Regulated in the UK under the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972.

Workplace Exposure Limits:

Short term exposure limit (15 minute reference period) 3620mg/m³ (1500 ppm).

Long term exposure limit (8 hour TWA reference period) 1210mg/m³ (500 ppm).

SECTION 16 – GENERAL INFORMATION

Unless otherwise noted, the above information pertains only to the hexane solvent and similar types of components in the sample. When no toxicity data is provided it is prudent to handle this chemical as hazardous. Furthermore, since individual chemical hypersensitivity cannot be predicted, every chemical should be handled with due respect.

Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibilities of such damages.