SECTION 1 CHEMICAL IDENTIFICATION OF THE SUBSTANCE/PREPARATION

PRODUCT NAME: Organic Calibration Standard: 1 pg/µL Octafluoronaphthalene in Iso-octane, also known as v-kit GCMS signal to noise COMMON NAME OR SYNONYMS: 2,2,4-Trimethylpentane, isobutyltrimethylmethane

Manufacturer/Supplier

V:KIT Ltd

16, John Bradshaw Court, Congleton Business Park

Congleton CW12 1LB UK Tel: +44 (0) 1260 274 266

SECTION 2

COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS:

MATERIAL % **TLV UNITS CAS # EINECS** (CH₃)₃CCH₂CH(CH₃)₂ ~99 300 ppm TWA [540-84-1] 208-759-1

SECTION 3 HAZARD IDENTIFICATION

Warning. Extremely flammable liquid and vapor. May cause flash fire

SECTION 4 FIRST AID MEASURES

General: Remove contaminated clothing, wash thoroughly before reuse.

Eyes: Flush with water for at least 15 minutes occasionally lifting upper and lower eyelids.

Skin: Remove contaminated clothing and flush with water thoroughly. **Inhalation:** Move to fresh air. Get medical attention immediately.

Ingestion: Get immediate medical attention immediately. If the patient is conscious, give large quantities of water. Do not induce vomiting.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point: -12C (10F) CC

Extinguishing media: Dry chemical, foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire-exposed

containers cool.

Special Hazards and Procedure: Vapor can spread along the ground and collect in low or confined areas.

Protective Equipment: Wear self-contained breathing apparatus and full protective suit.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Ventilate area. Wear protective equipment. Do not allow to enter drainage systems or water ways. Neutralize with soda ash, limestone etc. Wipe up and put into a sealed container for proper disposal. Wash spill site with water after material pick up is complete. Wear chemical resistant glasses, gloves and clothing.

SECTION 7 HANDLING & STORAGE

Ensure good ventilation/exhaustion at work place. Have an immediate availability of an eye wash in case of emergency. Store at room temperature. Keep the container tightly closed.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Permissible Exposure Limit (PEL): 500 ppm (TWA);

Wear goggles, protective apron and acid resistant gloves. Use under fume hood. If exposure limit is exceeded, use MSHA/NIOSH approved respirator.

SECTION 9 PHYSICAL & CHEMICAL PROPERTIES

Form: Liquid

Appearance & odor: Transparent with gasoline-like odor

% volatiles by vol. @ 21C: 100 negligible

pH: No information found

Melting point: -107C Boiling Point: 99C Vapor Pressure (mm Hg): 97 @ 20C

SECTION 10 STABILITY & REACTIVITY

T: +44 1260 274 266 F: +44 1260 273 319 Page 1 of 2 Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong oxidizing agents, strong reducing agents, strong acids or bases.

Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

SECTION 11 TOXICOLOGICAL INFORMATION

Slightly toxic by ingestion and inhalation. May be irritating to the respiratory tract and narcotic in high concentrations.

TOXICITY DATA:

Concentrated (CH₃)₃CCH₂CH(CH₃)₂—RTECS#-SA3320000

No LD50/LC50 information found relating to normal routes of occupational exposure. Investigated as a mutagen.

SECTION 12 ECOLOGICAL INFORMATION

Do not allow product to reach ground water, water bodies or sewage system.

SECTION 13 DISPOSAL CONSIDERATIONS

Contact local Hazardous or Chemical waste disposal agency for regulations.

SECTION 14 TRANSPORT INFORMATION

Air & Ground:

CLASS 3 UN/ID # 1262 Packing Group: II

Proper Shipping Name: Octanes

For inner package volumes of 30 mL or less (Not to exceed outer package volume of 500 mL):

UPS and/or Domestic Shipments, ship under the "Small Quantity" rule and attach label: "this package conforms to 49CFR..." FedEx and/or International Shipments: ship as "Excepted Quantity" attach "Excepted Quantity" label and specify UN number(s) and hazard class(es)

SECTION 15

REGULATORY INFORMATION

OSHA Hazards: Flammable Liquid, Delayed target organ effects, Irritant

TSCA Status: On TSCA Inventory

DSL Status: All components of this product are on the Canadian DSL list.

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section

302

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components:

2,2,4-Trimethylpentane, CAS-No. 540-84-1, Revision Date 1989-12-01

Pennsylvania Right To Know Components:

2,2,4-Trimethylpentane, CAS-No. 540-84-1, Revision Date 1989-12-01

New Jersey Right To Know Components:

2,2,4-Trimethylpentane, CAS-No. 540-84-1, Revision Date 1989-12-01

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16 OTHER INFORMATION

V:KIT LTD. ASSUMES NO RESPONSIBILITY AND MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN. INDICATED SAFETY MEASURES MAY NOT REFLECT ALL APPROPRIATE SAFETY MEASURES. V:KIT LTD. ASSUMES THAT ONLY QUALIFIED INDIVIDUALS, TRAINED AND FAMILIAR WITH PROCEDURES SUITABLE TO THIS PRODUCT, WILL HANDLE THIS PRODUCT.

References:

The Sigma/Aldrich Library of Chemical Safety Data, Ed.I, (1985)

Registry of Toxic Effects of Chemical Substances, 1981-82

Patty's Industrial Hygiene and Toxicology, 3rd Revised Edition, Vol. 2A, 1981

Threshold Limit Values and Biological Exposure Indices for 1988-89, ACGIH

Dangerous properties of Industrial Materials by N. Irving Sax and Richard J. Lewis, Sr.(Ninth Edition) *

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