

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 1 of 13

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

### Section 1. IDENTIFICATION

**Product name:** HEPTANE  
**Trade Name:** HEPTANE, HEPTANES  
**Product Description:** Aliphatic Hydrocarbon

**Intended Use:** Solvent

**Company identification**  
**Supplier/Manufacturer:**

APEX Komerco, LLC  
16800 Greenspoint Park Drive  
Suite 228N  
Houston, TX 77060

**E-mail address of person responsible for this SDS:** [gfranco@apexkomerco.com](mailto:gfranco@apexkomerco.com)  
**Emergency telephone number (including hours of operation):**

24-Hour Emergency Number (CHEMTREC)  
USA: 800-424-9300  
International: 703-527-3887

### Section 2. HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see SDS Section 15)

#### Classification of the substance or mixture

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Flammable liquids (Category 2), H225  
Skin irritation, Category 2, H315  
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336  
Aspiration hazard (Category 1), H304

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### GHS Label elements, including precautionary statements

**Pictogram:**

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 2 of 13



**Signal Word:** Danger

**Hazard Statement(s):**

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H336 May cause drowsiness or dizziness

**Precautionary statement(s):**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233 Keep container tightly closed  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area  
P280 Wear protective gloves/ eye protection/ face protection.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
P331 Do NOT induce vomiting.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to Extinguish  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

None as defined under 29 CFR 1900.1200.

**PHYSICAL / CHEMICAL HAZARDS**

Material can accumulate static charges which may cause an ignition. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited.

**ENVIRONMENTAL HAZARDS**

Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 3 of 13

aquatic environment

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

### Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Reportable Hazardous Substance(s) or Complex Substance(s):**

Name	CAS#	Concentration*
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT	64742-49-0	100%

**Contains:**

**n-Heptane, CAS # 142-82-5**

**n-Hexane CAS # 110-54-3 max 2%**

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume. Concentration values may vary

### Section 4. FIRST AID MEASURES

#### **INHALATION**

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

#### **SKIN CONTACT**

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

#### **EYE CONTACT**

Flush thoroughly with water. If irritation occurs, get medical assistance.

#### **INGESTION**

Seek immediate medical attention. Do not induce vomiting.

#### **NOTE TO PHYSICIAN**

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This light hydrocarbon material, or a component, may be associated with cardiac sensitisation following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

# HEPTANE

May 2015, Version 07.01

Page 4 of 13

## **Section 5: FIRE-FIGHTING MEASURES**

### **FLAMMABILITY PROPERTIES**

**Flash Point:** below 0 °C

**Flammable Limits (Approximate volume % in air):** LEL: 0.6 UEL: 7.0

**Autoignition Temperature:** minimum 200 °C

### **EXTINGUISHING MEDIA**

**Appropriate Extinguishing Media:** Use foam, dry chemical, or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight streams of water

### **FIRE FIGHTING**

**Fire Fighting Instructions:** Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop a leak. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Unusual Fire Hazards:** Highly flammable. Vapour is flammable and heavier than air. Vapour may travel across the ground and reach remote ignition sources, causing a flashback fire danger.

**Hazardous Combustion Products:** Smoke, Fume, Incomplete combustion products, Oxides of carbon

**Remark:** Move containers from fire area if possible to do so without risk.

## **Section 6: ACCIDENTAL RELEASE MEASURES**

### **Notification Procedure**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

### **Protective Measures**

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material

### **Spill Management**

**Land Spill:** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

**Large Spills:** Water spray may reduce vapour, but may not prevent ignition in enclosed spaces. Recover by pumping or with a suitable absorbent

**Water Spill:** Stop leak if you can do so without risk. Eliminate sources of ignition. Warn other shipping. If the Flash Point exceeds the Ambient Temperature by 100C or more, use

# HEPTANE

May 2015, Version 07.01

Page 5 of 13

containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the Flash Point does not exceed the Ambient Air Temperature by at least 100C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken .

## Environmental Precautions

**Large Spills:** Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

## 6.5 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

## Section 7: HANDLING AND STORAGE

### Precautions for safe handling

**Prevention of user exposure:** Avoid contact with skin. Use only with adequate ventilation. Prevent small spills and leakage to avoid slip hazard.

**Prevention of fire and explosion:** Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic / irritating fumes / vapour may be evolved from heated or agitated material. Use only with adequate ventilation. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

**Static Accumulator:** This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter), and is considered a semi conductive, static accumulator, if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semi conductive, the precautions are the same. A number of factors, for example: liquid temperature, presence of contaminants, anti-static additives and filtration, can greatly influence the conductivity of a liquid.

### Precautions while moving the product:

**Loading/Unloading Temperature:** [Ambient]

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 6 of 13

**Transport Temperature:** [Ambient]

**Conditions for safe storage, including any incompatibilities**

Technical measures: Ample fire water supply should be available. A fixed sprinkler / deluge system is recommended. The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. Storage containers should be earthed and bonded. Fixed storage containers, transfer containers and associated equipment should be earthed and bonded to prevent accumulation of static charge.

**Storage Temperature:** [Ambient]

**Storage Pressure:** [Ambient]

**Suitable Containers / Packing:** Tank Trucks; Drums; Railcars; Barges.

**Suitable Materials and Coatings (Chemical Compatibility):** Carbon Steel; Stainless Steel; Polyethylene; Polypropylene; Teflon; Polyester.

**Unsuitable Materials and Coatings:** Natural Rubber; Butyl Rubber; Ethylene-propylene-diene monomer (EPDM); Polystyrene.

### Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION

**EXPOSURE LIMIT VALUES**

**Exposure limits/standards (Note: Exposure limits are not additive)**

Component	CAS number	Value	Control parameters	Basis
Petroleum distillates (Naphtha)		TWA	500 ppm, 2,000 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
n-HEPTANE	142-82-5	TWA	85 ppm, 350 mg/m <sup>3</sup>	NIOSH REL
n-HEPTANE	142-82-5	TWA	500 ppm, 2,000 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
n-HEPTANE	142-82-5	STEL	500 ppm, 2,000 mg/m <sup>3</sup>	
n-HEXANE	110-54-3	TWA	50 ppm	ACGIH

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

**Engineering Controls**

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 7 of 13

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment.

### Personal Protection

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage .

**Respiratory protections:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include :

Half-face filter respirator Type A filter material.

Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

### Skin protection

**Hand protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves.

The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. Nitrile rubber or Viton are suitable. (e. g. EU standards EN 420 and EN 374, US: F739 provide general requirements and lists of glove types).

Skin and body protection (other than the hands): Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: chemical / oil resistant clothing, if contact with material is likely.

**Eye protection:** If contact is likely, safety glasses with side shields are recommended.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

**Environmental exposure controls:**

Do not allow material to contaminate ground water system.

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 8 of 13

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<b>Molecular weight (average):</b>	100.0
<b>Appearance:</b>	Liquid, colourless
<b>Odour:</b>	Not available
<b>Odour threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Melting point/Freezing point:</b>	below the lower limit of -20 °C
<b>Boiling range (ASTM D 1078):</b>	83-105 °C.
<b>Flash point (ASTM D 93):</b>	< 0 °C
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas):</b>	Not available
<b>Vapor pressure:</b>	6 kPa at 20 °C (calculated)
<b>Vapor density (air=1):</b>	Not available
<b>Auto-ignition temperature:</b>	minimum 200 °C.
<b>Decomposition temperature:</b>	Not available
<b>Oxidizing properties:</b>	Not applicable (substance is incapable of reacting exothermically with combustible materials on the basis of its chemical structure.)
<b>Explosive hazard:</b>	Not applicable
<b>Lower flammability limit:</b>	0.6%
<b>Upper flammability limit:</b>	7.0%
<b>Water Solubility:</b>	Not applicable
<b>Partition coefficient Octanol/Water:</b>	Not applicable
<b>Relative Density:</b>	0.68 – 0.78 g/cm <sup>3</sup> .
Typical value:	0.693 (15 °C).
<b>Viscosity:</b>	0.5-1.2 mm <sup>2</sup> /s (at 20 °C)
<b>Surface tension:</b>	19 - 22 mN/m at 25°C

### Section 10: STABILITY AND REACTIVITY

#### Reactivity

No data available

#### Chemical stability

Material is stable under normal conditions of use and storage.

#### Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

#### Incompatible materials

Strong oxidizers.

#### Hazardous Decomposition products

Material does not decompose at ambient temperatures.

#### Possibility of hazardous reactions

Hazardous polymerization will not occur.



## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 9 of 13

### Section 11: TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure:**

Inhalation, ingestion, skin and/or eye contact

**Symptoms related to the physical, chemical and toxicological characteristics:**

**Acute toxicity:**

Product / ingredient name	Test	Species	Dose
Naphtha (petroleum), hydrotreated light	LD50, Oral	Rat	LD50 > 5,000 mg/kg bw (rat)
	LC50, Inhalation (4h)	Rat	> 20 mg/L air (male/female)
	LD50, Dermal	Rat (male)	>2,000 mg/Kg bw

**Skin corrosion/irritation:** Irritating to the skin with prolonged exposure due to degreasing properties of the product.

**Serious eye damage/irritation:** Not classified.

**Respiratory or skin sensitization:** Not sensitizing.

**Repeated Dose Toxicity:** Auditory system: prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. (n-Heptane)

**Kidney:** caused kidney effects in male rats which are not considered relevant to humans

**Aspiration hazard:** Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive Toxicity:**

There is no evidence that hydrocarbons, C7, n-alkanes, isoalkanes, cyclics causes reproductive or developmental toxicity. The available data indicate that members of the C7-C9 aliphatic hydrocarbon solvent category are not toxic to reproduction and do not warrant classification under Dir 67/548/EEC or GHS/CLP

# HEPTANE

May 2015, Version 07.01

Page 10 of 13

## Section 12: ECOLOGICAL INFORMATION

### Acute Toxicity

**Fish:** LL50 (96 h) ~ 10 mg/l

**Aquatic Invertebrates:** LC50 (48h) <= 10 mg/l

**Algae:** EL50 (72 h) <= 10 mg/l

**Microorganisms:** LL50 (72 h) 15 mg/l

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

### MOBILITY

**Material** -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

### PERSISTENCE AND DEGRADABILITY

#### Biodegradation:

**Material** -- Expected to be readily biodegradable.

#### Hydrolysis:

**Material** -- Transformation due to hydrolysis not expected to be significant.

#### Photolysis:

**Material** -- Transformation due to photolysis not expected to be significant.

#### Atmospheric Oxidation:

**Material** -- Expected to degrade rapidly in air

## Section 13: DISPOSAL CONSIDERATIONS

### Waste disposal

**Disposal recommendations are based on material as supplied.** Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal .

**Disposal recommendation:** Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products .

### Disposal of contaminated packaging

**Disposal recommendation:** Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations.

DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 11 of 13

### **Section 14: TRANSPORT INFORMATION**

#### **US Department of Transportation Classification (49CFR)**

**UN number:** 1206  
**UN Proper shipping name:** HEPTANES  
**Hazard class:** 3  
**Packing group:** II  
**Emergency Response Guide No.** 128

#### **Marine Transport (IMDG)**

**UN number:** 1206  
**Proper shipping name:** HEPTANES  
**Chemical name:** Heptanes  
**Hazard class:** 3  
**Packing group:** II  
**EmS number:** F-E, S-D  
**Labels:** 3  
**Environmental Hazard:** Marine Pollutant  
**Description:** UN 1206, HEPTANES, 3, PG II, (<0°C c.c.)

#### **Air Transport (ICAO/IATA)**

**UN number:** 1206  
**Proper shipping name:** HEPTANES  
**Chemical name:** Heptanes  
**Hazard class:** 3  
**Packing group:** II  
**Labels:** 3  
**Description:** UN 1206, HEPTANES, 3, PG II

#### **Transport in bulk according to MARPOL 73/78 and the IBC Code**

**UN:** 1206  
**Pollution category:** X  
**Proper shipping name:** Heptane (all isomers)

### **Section 15: REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **OSHA HAZARD COMMUNICATION STANDARD:**

This material is considered hazardous in accordance with OSHA 29 CFR 1910.1200

**Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act**

#### **EPCRA/SARA Section 302 Extremely Hazardous Substances EPCRA RQs**

No chemicals in this material are subject to the reporting requirements of EPCRA Section 302 Extremely Hazardous Substances (EHSs) /SARA Title III, Section 302

## SAFETY DATA SHEET

# HEPTANE

May 2015, Version 07.01

Page 12 of 13

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**EPCRA/SARA Section 313 Toxic Chemicals**

The following components are subject to reporting levels established by SARA Title III, Section 313:

n-Hexane (CAS # 110-54-3) 2% (max)

**CERCLA Hazardous Substances reportable quantity (RQ)**

Components	CAS #	CERCLA RQ (lbs)	Calculated product RQ (lbs)
n-Hexane	110-54-3	5000	250,000 *

\* Calculated according to maximal content of n-Hexane (2%) in product

**CAA (Clean Air Act) Section 112(r)**

This material does not contain any components with a Section 112(r)

**SARA (311/312) REPORTABLE HAZARD CATEGORIES:**

Fire  
 Immediate (acute) Health  
 Delayed (chronic) Health

**U.S. California**

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm

**U.S. New Jersey Right To Know Components:**

Components	CAS #
n-Hexane	110-54-3
n-Heptane	142-82-5

**Listed on the following national/regional chemical inventory lists:**

AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA

**Section 16: OTHER INFORMATION**

**NFPA Rating (Health, Fire, Reactivity):** 1, 3, 0

**Training advice:** Before using/handling the product one must read carefully present MSDS.

**Recommended restriction:** N/A

Key Legend Information:

## **HEPTANE**

May 2015, Version 07.01

Page 13 of 13

ACGIH- American Conference of Governmental Industrial Hygienists

OSHA- Occupational Safety and Health Administration

NTP- National Toxicology program

IARC- International Agency for Research on Cancer

ND- Not Determined

N/A- Not available

Date of issue: 25/05/2015

Version no. 7.01

To the best of our knowledge the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.