



# SAFETY DATA SHEET

## LIGHT CATALYTICALLY CRACKED NAPHTHA REFINERY COMPONENTS

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

<b>Product name</b>	: LIGHT CATALYTICALLY CRACKED NAPHTHA REFINERY COMPONENTS
<b>Commercial name(s)</b>	: Light Catalytically Cracked Naphtha
<b>REACH Registration number</b>	: 01-2119487448-22-0014
<b>Product code</b>	: MSDS-6
<b>Other means of identification</b>	: Light Catalytically Cracked Spirit (LCCS), Cat Naphtha, Combined Cat Naphtha (CCN), Sweet Fractionator Overhead (SFOH)

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

<b>Identified uses</b>	: Light Catalytically Cracked Naphtha is a refinery stream used for gasoline blending or as a raw material for further processing.
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#### 1.3 Details of the supplier of the safety data sheet

Murco Petroleum Limited  
 4 Beaconsfield Road  
 St.Albans  
 Hertfordshire  
 AL1 3RH  
 Tel: 01727 892400  
 Web Site: <http://www.murco.co.uk/welcome.htm>

**e-mail address of person responsible for this SDS** : [murco\\_msds@murphyoilcorp.com](mailto:murco_msds@murphyoilcorp.com)

#### 1.4 Emergency telephone number

##### National advisory body/Poison Centre

**Telephone number** : Carechem24 Agreement through AEA Technology Plc who act through its National Emergency Centre.  
 0870 190 6777  
 (7/24)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

##### Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : F; R11  
 Carc. Cat. 1; R45  
 Muta. Cat. 2; R46  
 Xn; R65

**Physical/chemical hazards** : Highly flammable.

**Human health hazards** : May cause cancer. May cause heritable genetic damage. Also harmful: may cause lung damage if swallowed.

See Section 16 for the full text of the R phrases declared above.

See Section 11 for more detailed information on health effects and symptoms.

#### 2.2 Label elements

**Hazard symbol or symbols** : **F, T**



**SECTION 2: Hazards identification**



- Indication of danger** : Highly flammable, Toxic
- Risk phrases** : R11- Highly flammable.  
R45- May cause cancer.  
R46- May cause heritable genetic damage.  
R65- Also harmful: may cause lung damage if swallowed.
- Safety phrases** : S7- Keep container tightly closed.  
S16- Keep away from sources of ignition - No smoking.  
S23- Do not breathe gas, fumes or vapour.  
S24- Avoid contact with skin.  
S43- In case of fire, never use water.  
S53- Avoid exposure - obtain special instructions before use.  
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.  
S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
- Contains** : Naphtha (petroleum), light catalytic cracked sweetened  
Benzene
- Supplemental label elements** : Not applicable.
- Special packaging requirements**
  - Containers to be fitted with child-resistant fastenings** : Not applicable.
  - Tactile warning of danger** : Not applicable.

**2.3 Other hazards**

- Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.
- Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.
- Other hazards which do not result in classification** : Not available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance/preparation** : Mixture

Ingredient name	CAS number	%	EC number	Classification
Naphtha (petroleum), light catalytic cracked sweetened	92045-59-5	99 - 100	295-441-0	Muta. Cat. 2; R46 [1] Xn; R65
Benzene	71-43-2	<1	200-753-7	F; R11 [1] [2] Carc. Cat. 1; R45 Muta. Cat. 2; R46 T; R48/23/24/25 Xn; R65 Xi; R36/38
<b>See Section 16 for the full text of the R-phrases declared above.</b>				

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes.
- Inhalation** : Move exposed person to fresh air.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

#### 4.2 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub> or foam.
- Unsuitable extinguishing media** : Do not use water jet.

#### 5.2 Special hazards arising from the substance or mixture

- Hazardous combustion products** : No specific data.

#### 5.3 Advice for firefighters

- Special precautions for fire-fighters** : Use water spray to keep fire-exposed containers cool. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.



## SECTION 6: Accidental release measures

**6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

**6.4 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

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities** : Storage is controlled by the Petroleum (Consolidation) Act 1928 and the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations, 1972. A licence issued by a Local Authority or the Health and Safety Executive is required if more than 3 gallons (13.6 litres) are to be stored. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)



## SECTION 7: Handling and storage

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
Benzene	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. TWA: 1 ppm 8 hour(s).

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

### 8.2 Exposure controls

**Appropriate engineering controls** : Use only with adequate ventilation. Use explosion-proof ventilation equipment.

#### Individual protection measures

**Hygiene measures** : Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

**Eye/face protection** : Safety eyewear should be used when there is a likelihood of exposure. Recommended: Safety glasses with side shields.

#### Skin protection

**Hand protection** : Use gloves appropriate for work or task being performed. Recommended: Natural rubber (latex).

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure an MSHA/NIOSH-approved respirator or equivalent is used.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid. [Fluid.]

**Colour** : Pale colourless.

**pH** : Not available.

**Melting point/freezing point** : Not available.

**Initial boiling point and boiling range** : 36 to 102°C



## SECTION 9: Physical and chemical properties

<b>Flash point</b>	: Closed cup: <-15°C [Pensky-Martens.]
<b>Evaporation rate</b>	: Not available.
<b>Flammability</b>	: Not available.
<b>Upper/lower flammability or explosive limits</b>	: Lower: 1.3% Upper: 8%
<b>Vapour pressure</b>	: 0.15 kPa [20°C]
<b>Vapour density</b>	: 2.7 [Air = 1]
<b>Relative density</b>	: 0.67
<b>Solubility(ies)</b>	: Not available.
<b>Auto-ignition temperature</b>	: 260°C
<b>Viscosity</b>	: Kinematic: 0.0056 cm <sup>2</sup> /s (0.56 cSt)

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
- 10.5 Incompatible materials** : Highly reactive or incompatible with the following materials:  
oxidizing materials
- 10.6 Hazardous decomposition products** : Thermal decomposition may lead to the formation of a multiplicity of compounds some of which may be hazardous. With incomplete combustion smoke and hazardous fumes and gases, including carbon monoxide may be formed.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Light Catalytically Cracked Naphtha Benzene	LD50 Oral	Rat	13.6 g/kg	-
	LD50 Oral	Rat	930 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Benzene	Eyes - Moderate irritant	Rabbit	-	-	-
	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rat	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

#### Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.
- Skin contact** : May cause skin irritation.



## SECTION 11: Toxicological information

**Eye contact** : May cause eye irritation.

### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : High vapour concentrations can cause headaches, dizziness, drowsiness and nausea and may lead to unconsciousness.

**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

**Skin contact** : Prolonged or repeated skin contact may cause dermatitis, drying, and defatting due to the solvent properties.

**Eye contact** : Likely to cause short-term irritation with redness and stinging.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : May cause heritable genetic effects.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Benzene	Acute EC50 29000 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 >1360000 ug/L Fresh water	Algae - Scenedesmus abundans	96 hours
	Acute EC50 9230 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <=24 hours	48 hours
	Acute LC50 21000 ug/L Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 5.28 ul/L Fresh water	Fish - Oncorhynchus gorbuscha - Fry	96 hours
	Chronic NOEC <13000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours

**Remarks** : Likely to harm aquatic organisms; may cause long-term adverse effects in the aquatic environment. Likely to evaporate readily, but any films formed on water may affect oxygen transfer and damage organisms.

### 12.2 Persistence and degradability

**Remarks** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Light Catalytically Cracked Naphtha	-	-	Inherent

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Benzene	2.13	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.



**LIGHT CATALYTICALLY CRACKED NAPHTHA REFINERY COMPONENTS**

**SECTION 12: Ecological information**

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Under no circumstances should Light Catalytically Cracked Naphtha be discharged into the public drainage system, or marine and inland waterways. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.





**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>ADN/ADNR</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	UN3295	UN3295	UN3295	UN3295
<b>14.2 UN proper shipping name</b>	HYDROCARBONS, LIQUIDS, N.O.S. (Naphtha (petroleum), light catalytic cracked sweetened)	HYDROCARBONS, LIQUIDS, N.O.S. (Naphtha (petroleum), light catalytic cracked sweetened)	HYDROCARBONS, LIQUIDS, N.O.S. (Naphtha (petroleum), light catalytic cracked sweetened)	HYDROCARBONS, LIQUIDS, N.O.S. (Naphtha (petroleum), light catalytic cracked sweetened)
<b>14.3 Transport hazard class(es)</b>	3 	3 	3 	3 
<b>14.4 Packing group</b>	II	II	II	II
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.



**LIGHT CATALYTICALLY CRACKED NAPHTHA REFINERY COMPONENTS**

**SECTION 14: Transport information**

<b>14.6 Special precautions for user</b>	Not available.	Not available.	Not available.	Not available.
<b>Additional information</b>	-	-	-	-

PG\* : Packing group

Exemption to the above classification may apply.

**SECTION 15: Regulatory information**

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.

Other EU regulations

**Europe inventory** : All components are listed or exempted.

**Black List Chemicals** : Not listed

**Priority List Chemicals** : Not listed

**Integrated pollution prevention and control list (IPPC) - Air** : Not listed

**Integrated pollution prevention and control list (IPPC) - Water** : Not listed

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
Naphtha (petroleum), light catalytic cracked sweetened	-	Muta. Cat. 2; R46	-	-
Benzene	Carc. Cat. 1; R45	Muta. Cat. 2; R46	-	-

Product/ingredient name	List name	Name on list	Classification	Notes
Benzene	UK Occupational Exposure Limits EH40 - WEL	benzene; benzo	Carc.	-

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

**SECTION 16: Other information**

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number

**SECTION 16: Other information**

**Full text of abbreviated R phrases** : R11- Highly flammable.  
 R45- May cause cancer.  
 R46- May cause heritable genetic damage.  
 R48/23/24/25- Also toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  
 R65- Also harmful: may cause lung damage if swallowed.  
 R36/38- Irritating to eyes and skin.

**Full text of classifications [DSD/DPD]** : F - Highly flammable  
 Carc. Cat. 1 - Carcinogen category 1  
 Muta. Cat. 2 - Mutagen category 2  
 T - Toxic  
 Xn - Harmful  
 Xi - Irritant

**History**

**Date of issue (dd/mm/yyyy)** : 23/02/2011  
**Date of previous issue** : 16/12/2010  
**Version** : 2

**Notice to reader**

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.