Tabriz Oil Refining Company

SAFETY DATA SHEET

LSRG 1800 **MSDS No. LSRG 1800 - 2015**

SECTION 1: **Product and company Identification**

1.1 Product Identifier
Product Name: LSRG 1800
Other name: LSRG 1800
Chemical Family: A complex combination of hydrocarbons

1.2 Product Use
For use as a component in gasoline.

1.3 Detail of the supplier of the safety data sheet

Manufacture / Supplier / Importer: Tabriz Oil Refining Company
5 Tabriz – Azarshar Road
Tabriz,
East Azerbaijan,
I.R Iran.
Postal Cod: 5197131111
www.tabrizrefinery.co.ir

Contact person: General Information
+98-4121148305
info@tbzrefinery.co.ir

Emergency telephone number: +98- 4121149117-118

SECTION 2: **Hazard Identification**

Danger:
Extremely flammable liquid and vapor.
Vapor may cause flash fire.
Heat may cause the containers to explode.
Easily ignitable by all types of ignition source, so keep away from heat/ spark/ open flame or hot surfaces.
As the material has a low flash point, any spillage should be considered a potential fire hazard.

Target Organs:
Blood. Eyes. Liver. Respiratory system. Skin. Kidneys. Central nervous system.

Routes of exposure:
Inhalation. Ingestion. Skin contact. Eye contact.

Skin Contact:
Harmful if absorbed through skin. Irritating to skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Ingestion:
Harmful if swallowed. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis. Irritating to mouth,throat, and stomach.

Eye Contact:
Contact may irritate or burn eyes. Eye contact may result in corneal injury.

Inhalation Contact:
Harmful if inhaled. Irritating to respiratory system. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. May cause breathing disorders and lung damage. May cause cancer by inhalation. Prolonged inhalation may be harmful.

SECTION 3: **Composition / Information on Ingredients**

CAS No.	Chemical Name	Percent
Mixture	LSRG 1800	See note

NOTE: Ingredients are Paraffin (88.6 Wt.%), Olefins (0.1Wt.%), Naphthenic (9.5 Wt.%), Aromatic (1.6 Wt.%), Benzene (1.4 Wt.%), Unknown (0.2 Wt.%)

SECTION 4: **First aid measures**

Inhalation:
Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if discomfort develops or persists.

Skin Contact:
Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes. If high pressure injection under the skin occurs, always seek medical attention.

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

Ingestion:
Do NOT induce vomiting. Immediately get medical attention. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

First aid facilities
Eye wash fountains and safety showers should be available for emergency use.

Advice to Doctor
Gastric lavage should only be done after endotracheal intubation in view of the risk of aspiration which can cause serious chemical pneumonitis for which antibiotic and corticosteroid therapy may be indicated.

SECTION 5: **Fire fighting measures**

Fire and explosion hazards
CAUTION! Flammable liquid and vapor. This material may be ignited by heat, sparks, flames, or other sources of ignition (e.g static electricity, pilot lights, or mechanical /electrical equipment). Vapors are heavier than air and may spread along floors. Vapors may travel considerable distance to a source of ignition and flash back. Heat may cause the containers to explode. Vapors may form

explosive mixtures with air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

Hazardous Combustion Products
Carbon monoxide. Carbon Dioxide. Sulfur oxides. Hydrocarbons.Toxic fumes may be evolved on burning or exposure to heat.

Unusual fire and explosion hazard
Not data available.

Suitable Extinguishing Media
Small Fires: Use DRY chemical powder, carbon dioxide.
Large Fires: Use foam and water spray or fog
Note:. Cool containing vessels with water in order to prevent pressure build-up, auto-ignition or explosion.
Warning: Do not use a solid water stream (Jet) as it may scatter and spread fire.

Additional Advice
Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, Self-contained breathing apparatus. Cool surrounding equipment, fire exposed containers, pipelines and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water to prevent weakening of container structure. Do not apply water directly.

Special protective equipment for fire-fighters
Wear full fire resistant protective clothing, helmet with face shield, gloves, rubber boots. Use NIOSH/MSHA approved self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Stay away from heads of containers that have been exposed to intense heat or flame. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines.

Flash Point: Not available

Lower Explosive Limit (LEL): Not available

Upper Explosive Limit (UEL): Not available

SECTION 6: **Accidental release measures**

Protective Measures

CAUTION! Product is combustible. Eliminate all potential sources of ignition. Keep away from heat, naked flames and sparks. Stop leak if safe to do so. Wear chemical splash goggles, full suit, vapor respirator, boots, gloves, self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Suggested protective clothing might not be adequate.

CAUTION! The protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or if concentrations exceed the protection limits of air-purifying respirator.

Clean Up Methods

Small Spill: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste.

Large Spill: Isolate the immediate area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Flammable liquid, Remove all sources of ignition in the surrounding area. Take precautionary measure against static discharge. Stop leak if without risk. Avoid spreading spilled material. Dike if needed. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas. Use fire fighting foam as a protective blanket on flammable liquid to reduce the rate of evaporation.

ATTENTION: Use non-sparking tools and explosion-proof equipment.

Protective Precautions

Avoid dispersal of spilled 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).

Environmental Precautions

Do not allow spilled material to enter drains or water courses. Cover all drains and sewers.

SECTION 7: **Handling and storage**

General Precautions

CAUTION! Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Eliminate all sources of ignition. Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Do not eat, drink or smoke when using the product. Electrical ventilation (Ex – explosion protected type) or local exhaust ventilation may be required. Provide adequate ventilation.

Handling

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges, so for transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Avoid spark promoters. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Wash hands thoroughly after use and before eating, drinking, or smoking. Do not eat, drink, or smoke in the work area. Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower. Avoid release to the Flammable liquid storage.

Storage

Keep product away from ignition sources such as heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors has dissipated. Store in a cool, dry and well ventilated area. Keep containers closed at all times. Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion. Store distant from fire and ignition sources. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks“. Keep out of the reach of children.

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SECTION 8: **Personal protection / Exposure Control**

Occupational Exposure Limit:

LSRG 1800	**Threshold Limit Value** A mixture of hydrocarbons (see note) NOTE (1): The U.S ACGIH Threshold Limit Values for benzene component are TWA (0.5 ppm – 1.5 mg/m^3) and STEL (2.5 ppm – 7.5 mg/m^3) NOTE (2): The U.S OSHA Threshold Limit Values for benzene component are TWA (10 ppm – 30 mg/m^3) and Ceiling (25 ppm - 75 mg/m^3) NOTE (3): The U.S NIOSH Threshold Limit Value for benzene component is STEL (1 ppm – 3 mg/m^3)

Engineering Control:
Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

Eye / Face Protection:
Wear safety glasses. If splash potential exists, wear full face shield or chemical goggles.

Hand Protection:
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. It is recommended that gloves are made of the following material: Nitrile rubber.

In case of large spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested

protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

NOTE: Wear appropriate thermal protective clothing, when necessary.

Respiratory Protection:
Use NIOSH-certified, full-face, air-purifying respirator with organic vapor cartridges respiratory protective equipment whenever concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.
If workplace exposure limits for product or components **are exceeded**, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors.

Hygiene measures:
Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: **Physical and Chemical Properties**

Physical State: Liquid
Color Saybolt: 30 (ASTM D 156)
Odor: Not available
PH: Not available
Reid Vapor Pressure (@37.8°C) : 95 KPa (ASTM D 323)
Density (@ 15 °C): 0.6650 gr/cm^3 (ASTM D1298)
Evaporation Rate: Not available
Boiling Point (°C): IBP (35°C), 5% (41°C), 10% (43°C), 30% (48°C), 50% (54°C), 70% (61°C), 90% (86°C), 95% (107 °C), FBP (115°C) (ASTM D 86)
Freezing/Melting Point: Not available
Decomposition Temperature: Not available
Solubility in water: Not available
Molecular Formula: Not available
Molecular Weight: Not available
Flash Point (°C): Not available
Viscosity: Not available

Sulfur Total (mg/kg): 75 (ASTM D 5453)

SECTION 10: **Stability and Reactivity**

Chemical Stability: Stable under normal temperatures and pressures.

Material to avoid: Strong acids and oxidizing agents.

Condition to avoid: Heat, flames and sparks. Ignition sources. Contact with incompatible materials. Do not pressurize,cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.

Hazardous Decomposition: Carbon monoxide. Carbon Dioxide. Sulfur oxides. Hydrocarbons.Toxic fumes may be evolved on burning or exposure to heat.

Hazardous Reactions:
Stable under normal conditions of use; under normal conditions of storage and use, hazardous reactions will not occur. however, incompatible with strong acids and strong oxidizers. Keep away from oxidizing agents, and acidic or alkaline products.

Hazardous Polymerization:
None under normal temperatures and pressures. Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

SECTION 11: **Toxicological Information**

Repeated Exposure: No data

Carcinogenicity: No data

Chronic effects: No data

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SECTION 12: **Ecological Information**

Mobility in soil: No data

Persistence and Degradability: No data

Bioaccumulative Potential: No data

Degradability: No data

Ecotoxicity: No data

SECTION 13: **Disposal Considerations**

Dispose in accordance with federal, state, provincial, and local regulations.
Regulations may also apply to empty containers.

SECTION 14: **Transport Information**

DOT number: A mixture of chemicals
Proper shipping name: Flammable Liquid
Transport hazard class (es): Class 3
Packing Group: III

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SECTION 15: **Regulatory Information**

US Federal: Not available

US State: Not available

SECTION 16: **Other Information**

NFPA Rating (Scale 0-4) : Health Hazard (1), Fire Hazard (4), Reactivity Hazard (0), Special Hazard (non-sign)

Disclaimer: Not mentioned