WHMIS	Personal Protection Equipment	TDG (Ground)
		

1 Identification of the substance/mixture and of the company/undertaking

Product identifier
Trade name: Heavy Reformate
SDS Nr: SDS-0030
Chemical description: Reformate
CAS No: 64741-68-0
EC No: 265-070-9

Registration-No: Registration deadline not expired.
Use: Used in the production and formulation of gasoline and fuel products, chemical industry feedstock, and refinery feedstock.

Company identification: Freepoint Commodities, LLC
58 Commerce Road
Stamford, Ct. 06902

E-Mail address (competent person): Lou Santore

Lou Santore [LSantore@freepoint.com]

Emergency telephone number: Within the U.S. or Canada: 1 800 424 9300
Outside the U.S. and Canada: +1 703 527 3887 (collect calls accepted)

MSDS prepared by: Paule Patterson, ENERCON Services, Inc.

2 Hazards identification

GHS Classification:

Classification according to Regulation (EC) No 1272/2008 (CLP/GHS):

Flammable Liquid 2; H225
Skin irritant 2 Mutagen 1B; H340
Carcinogen 1B; H350
Reproduction 2; H361
Aspiration Toxicology 1; H304
STOT Single Exposure 3; H336
Aquatic Chronic 2; H411

Classification according to Directive 67/548/EEC or 1999/45/EC:

F; R11
R67
Xn; R65
Xi; R38
Carcinogen Category 2; R45
Mutagen Category 2; R46
Reproductive Category 3; R62
N; R51/53

GHS LABEL ELEMENTS
Symbol(s)

Signal Word

Danger

CLP Hazard Statements :

ENVIRONMENTAL HAZARDS:

H411: Toxic to aquatic life with long lasting effects.

HEALTH HAZARDS:

H225: Highly flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

CLP Precautionary statements

Prevention :

P201: Obtain special instructions before use.
P210: Keep away from heat, sparks, open flame, hot surfaces - No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Response :

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Disposal:

P501: Dispose of contents and container to appropriate waste site or reclaimer in accordance with local, state, and national regulations.

Vapor may create explosive atmosphere. The vapor is heavier than air; beware of pits and confined spaces. May cause irritation to eyes and air passages.

Label elements According to Directive 67/548/EEC & Directive 1999/45/EC

Hazard pictogram(s):

Risk Phrases:

R12: Extremely flammable.
R38: Irritating to skin.
R45: May cause cancer.
R46: May cause heritable genetic damage.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62: Possible risk of impaired fertility.
R63: Possible risk of harm to the unborn child.
R65: Harmful: may cause lung damage if swallowed.
R67: Vapors may cause drowsiness and dizziness.

Safety Phrases:

S2: Keep out of the reach of children.
S23: Do not breathe fumes/vapor.
S24: Avoid contact with skin.
S29: Do not empty into drains.
S36/37: Wear suitable protective clothing and gloves.
S43 In case of fire, use foam, dry powder or sand.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S51: Use only in well-ventilated areas.
S53: Avoid exposure - obtain special instructions before use.
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.
S62: If swallowed, do not induce vomiting: seek medical advice and immediately show this container or label.

3 Composition/information on ingredients

EC Classification No. 1272/2008

Component	Product Identifiers	Percent	Hazard symbol(s) and hazard statement(s)
Heavy Catalytic Reformed, Mogas / Naphtha	CAS No: 64741-68-0 EC No: 265-070-9	100	Flam. Liq. 1; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Muta. 1B; H340 Carc. 1B; H350 Repr. 2; H361fd Aquatic Chronic 2; H411

EC Classification No. 67/548/EC

Component	Product Identifiers	Percent	Risk Phrases and Safety Phraseso
Heavy Catalytic Reformed, Mogas / Naphtha o	CAS No: 64741-68-0 EC No: 265-070-9	100	Asp. Tox. 1, H304 Carc. 2, H351 Skin Irrit. 2, H315 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Aquatic Chronic 2, H411

4 First aid measures

First Aid: Eyes

In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

First Aid: Skin
Remove contaminated clothing. Rinse thoroughly for at least 15 minutes. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops.

First Aid: Ingestion
DO NOT INDUCE VOMITING. Do not give liquids if victim is unconscious. If victim is conscious, wash mouth out with water and provide water to drink (~ ½ pint or 200 – 300 ml). Obtain immediate medical attention. If spontaneous vomiting occurs, position victim forward, with head between knees, to reduce the risk of aspiration. Monitor for breathing difficulties.

First Aid: Inhalation
Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately if breathing becomes difficult.

5 Fire-fighting measures

General Fire Hazards

See Section 9 for Flammability Properties.
Vapors can readily form explosive mixtures with air. Heavier than air vapors can flow along surfaces to ignition sources and flash back. Use self-contained breathing apparatus in enclosed areas. For massive fires, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Always stay away from tanks engulfed in fire.

Unusual Fire or Explosion Hazards

Keep away from heat, sources of ignition and strong oxidizers. This material can react violently with oxidizing agents.

Hazardous Combustion Products

Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, fire-fighting foam, or gaseous extinguishing agent. Water may splash and spread flaming liquid. ***DO NOT USE WATER JET.*** Avoid spreading burning liquid with water used for cooling purposes. Do not flush down public sewers. The use of self- contained breathing apparatus and protective clothing is recommended for fire fighters. Avoid inhalation of vapors.

LARGE FIRES: Water spray, fog or firefighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers. Water may splash and spread flaming liquid. ***DO NOT USE WATER JET.*** Avoid spreading burning liquid with water used for cooling purposes. Do not flush down public sewers. The use of self- contained breathing apparatus and protective clothing is recommended for fire fighters. Avoid inhalation of vapors.

Unsuitable Extinguishing Media

Water directed at source.

Fire Fighting Equipment/Instructions

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full face piece and full protective clothing. Isolate area around container involved in fire.

Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied firefighting foam.

6 Accidental release measures

Recovery and Neutralization

Danger, Flammable, eliminate all ignition sources. Equipment used in spill cleanup must be grounded to prevent sparking. Prevent entry into waterways, sewers, and confined areas. Carefully contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container, seal tightly for proper disposal or reclamation.

Emergency Measures

Small Spills:
Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Product may release substantial amounts of flammable vapors and gases (e.g., methane, ethane, and propane), at or below ambient temperature depending on source and process conditions and pressure. Sweep absorbed material with non-sparking tools.

Large Spills:
Isolate the hazard area at least 150 feet in all directions and restrict entry to unnecessary personnel. Shut off source of leak only if it can be done so safely or dike and contain the spill. Wear appropriate respirator and protective clothing. Water fog may be useful in suppressing vapor cloud contain run-off. Remove with vacuum trucks. Soak up residue with sand or other suitable material, place in containers for proper disposal. Sweep absorbed material with non-sparking tools. Flush with water and disposal of flushing solutions as above. Local, state and federal disposal regulations must be followed.

Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of firefighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection - do not discharge solid water stream patterns into the liquid resulting in splashing.

Prevention of Secondary Hazards

Caution - spillages may be slippery.

7 Handling and storage

Handling Procedures

Handle as a flammable liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area.

Do not get in eyes, on skin or on clothing. Do not breathe vapors, mists or fumes. Wear protective equipment described in section 8 if exposure conditions warrant. Use only with adequate ventilation.

Storage Procedures

Keep away from flame, sparks, excessive temperatures, static electricity, pilot lights, and other ignition sources. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may

contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. 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."

Product Transfer:

Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapor mixtures can occur. Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/s until fill pipe submerged to twice its diameter, then <= 7 m/s). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations

Incompatibilities

Keep away from oxidizers.

8 Exposure controls/personal protection

Component Exposure Limits:
OSHA Permissible Exposure Limit (PEL): 300 ppm (TWA), 400 ppm (STEL)

ACGIH Threshold Limit Value (TLV): 300 ppm (TWA), A3 - Animal Carcinogen.

Engineering Measures

Use adequate ventilation to provide explosion proof ventilation to keep vapor concentrations of this product below exposure and flammability limits in enclosed work areas, particularly in confined spaces. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Hands

Gloves constructed of nitrile or neoprene are recommended.

Personal Protective Equipment: Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Personal Protective Equipment: Respiratory

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

A NIOSH/ MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations (for exposures over TLV up to 300 ppm) are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Employees engaged in handling operations involving benzene must be provided with, and required to wear and use, a *half-mask* filter-type respirator for dusts, mists, and fumes. A respirator affording higher levels of protection than this respirator may be substituted.

Personal Protective Equipment: Skin and Body

Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

Hygiene Measures

Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use gasoline or solvents (naphtha, kerosene, etc.) for washing this product from exposed skin areas. Waterless hand cleaners are effective.
Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

9 Physical and chemical properties

Appearance:	Pale Yellow	**Odor:**	Characteristic mild hydrocarbon odor
Physical State:	Liquid	**pH:**	ND
Vapor Pressure:	>40 hPa (@ 100 °F / 38 °C)	**Vapor Density:**	>2
Boiling Point:	95 °F / 35 °C	**Melting Point:**	ND
Solubility (H2O):	Negligible	**Specific Gravity:**	0.7 – 0.8
Evaporation Rate:	ND	**VOC:**	ND
Octanol/H2O Coeff.:	ND	**Flash Point:**	-45 to -100 °F (-42 to -38 °C)
Flash Point Method:	TCC	**Upper Flammability Limit (UFL):**	10%
Lower Flammability Limit (LFL):	1.0%	**Burning Rate:**	ND
Auto Ignition:		280 °F	

10 Stability and reactivity

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Hazardous Polymerization will not occur.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible Products

Keep away from strong oxidizers and strong acids.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke), sulfur oxides, and other decomposition products.

11 Toxicological information

Acute Toxicity

A: General Product Information

May cause cancer. Contains benzene, a classified IARC 1 chemical (Known Human Carcinogen). Also contains ethyl benzene, which is classified as an IARC 2B chemical (Possibly Carcinogenic to Humans).
Benzene is listed as a human carcinogen by the NTP, IARC, OSHA and ACGIH.
May be Fatal or Harmful if swallowed and enters airways. Occupational exposure to the substance or mixtures may cause adverse effects.

B: Component Analysis - LD50/LC50

Petroleum distillates (naphtha) (8002-05-9)
Oral LD50 Rat >4300 mg/kg; Dermal LD50 Rabbit >2000 mg/kg
Inhalation LC50 Rat >5.2 mg/l/4 h
Ingestion LD50 Rat >5000 mg/kg

Potential Health Effects: Skin Contact Property

Causes skin irritation. Prolonged contact may cause defatting of skin which can lead to dermatitis.

Potential Health Effects: Eye Contact Properties

Contact with eyes may cause moderate to severe irritation.

Potential Health Effects: Ingestion

Ingestion may cause irritation and malaise. Swallowing or vomiting of the liquid may result in aspiration into the lungs.

Potential Health Effects: Inhalation

Inhalation of vapors may cause drowsiness and dizziness.

Germ cell Mutagenicity:

May cause genetic defects. In in-vitro experiments, neither benzene, toluene nor xylene changed the number of sister-Chromatid exchanges (SCEs) or the number of chromosomal aberrations in human lymphocytes.

Reproductive toxicity:

Suspected of damaging the unborn child. Suspected of damaging fertility. Animal studies of benzene have shown testicular effects, alterations in reproductive cycles, chromosomal aberrations and embryo/feto toxicity. May damage fertility or the unborn child. Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility. Avoid exposure to women during early pregnancy. Avoid contact during pregnancy/while nursing.
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) SDS EU 903868 Version #: 05 Revision date: 17-August-2012 Issue date: 28-July-2011 12 / 16

Specific target organ toxicity -single exposure- May cause drowsiness or dizziness.
Specific target organ toxicity -repeated exposure - Not classified.

12 Ecological information

Eco toxicity

A: General Product Information

Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under local, State, and Federal regulations.

B: Component Analysis - Eco toxicity - Aquatic Toxicity

Naphtha (petroleum), catalytic reformed (68955-35-1)	Conditions
LC50 fishes	≤ 10 mg/l 96 hours
LC50 other aquatic organisms	≤ 10 mg 40 hours
ErC50 (algae)	≤ 10 mg /l 72 hours

Substance is considered readily biodegradable.
Mobility : Floats on water. Adsorbs on soil
Oxidizes by photo-chemical reactions in air.
Contains constituents with the potential to bio-accumulate.
May be dangerous if it enters water intakes.
Notify local health and wildlife officials.
Notify operators of nearby water intakes.

13 Disposal considerations

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

This material and its container must be disposed of in a safe way.
It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local, state, and federal regulations.

Disposal Regulatory Requirements:

Recovered non-usable material is regulated by the US EPA as a hazardous waste due to its ignitibility characteristics (D001) and its benzene content (D018).

Container Cleaning and Disposal: "Empty" Container Warning:

"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, 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.

14 Transport information

DOT Information:

Shipping Name: PETROLEUM DISTILLATES, N.O.S.
UN #: 1268
Hazard Class: 3 - Packing - I

Land transport (ADR/RID):
ADR
14.1 UN No. : 1268
14.2 Proper shipping name: PETROLEUM DISTILLATES, N.O.S.
14.3 Transport Hazard Class: 3
14.4 Packing group: I Classification code: F1 Hazard identification #: 33
Danger label (primary risk): 3
14.5 Environmentally Hazardous: Yes

RID
14.1 UN No. : 1268
1414.2 Proper shipping name: PETROLEUM DISTILLATES, N.O.S.
14.3 Transport Hazard Class: 3
14.4 Packing group: I Classification code: F1 Hazard identification #: 33
14.5 Environmentally Hazardous: Yes

Sea transport (IMDG Code):
14.1 UN No. : 1268
14.2 Proper shipping name: PETROLEUM DISTILLATES, N.O.S.
14.3 Transport Hazard Class: 3
14.4 Packing group: I Classification code: F1 Hazard identification #: 33
14.5 Marine pollutant: Yes (N-Hexane)

Air transport (IATA):
14.1 UN No. : 1268
14.2 Proper shipping name: PETROLEUM DISTILLATES, N.O.S.
14.3 Transport Hazard Class: 3
14.4 Packing group: I Classification code: F1 Hazard identification #: 33
14.5 Environmentally Hazardous: Yes

Sea (Annex II of MARPOL 73/78 and the IBC code)
Pollution Category: Y
Ship Type: 2
Special Precaution: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.
Subsidiary class/Division: 6.1
14.4 Packing group: II

15 Regulatory information

Component Analysis

US Federal Regulations
CERCLA RQ - 40 CFR 302.4
Component Component

TOLUENE	1000
XYLENES (O-, M-, P- ISOMERS)	100
BENZENE	10

SARA 302 Components - 40 CFR 355 Appendix A - None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number
TOLUENE	108-88-3
XYLENE (MIXED ISOMERS)	1330-20-7
BENZENE	71-43-2

International Regulations
Inventory Status
Not determined

State and Local Regulations
California Proposition 65
The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.
BENZENE

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.
TOLUENE BENZENE

New Jersey RTK Label Information

TOLUENE	108-88-3
XYLENES	1330-20-7
BENZENE	71-43-2

Pennsylvania RTK Label Information

BENZENE, METHYL-	108-88-3
BENZENE, DIMETHYL-	1330-20-7

16 Other information

DISCLAIMER OF LIABILITY: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

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Information is correct to the best of our knowledge at the date of the SDS publication. It is not a specification sheet nor should any displayed data be construed as a specification.

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