



Vacuum Gas Oil

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 11/19/2018

Version: 1.0

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

1.1. Product identifier

Product name : Vacuum Gas Oil
Product form : Mixture
Formula : Petroleum Hydrocarbon, a complex combination of hydrocarbons having carbon numbers predominately higher than C20, and may contain hydrogen sulfide.
Other means of identification : Atmospheric Gas Oil, Straight Run Fuel Oil, Heavy Vacuum Gas Oil.

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

1.3. Details of the supplier of the safety data sheet

Archon Refinery, LLC
Archon Trading Company
Archon LLC
201 East Fifth Street, Suite 800, Cincinnati Oh 45202

1.4. Emergency telephone number

: (Archon reference number: 225708)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Muta. 1B H340
Carc. 1A H350
Repr. 1B H360
STOT RE 1 H372

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS08

Signal word (GHS-US)

: **Danger**

Hazard statements (GHS-US)

: H340 - May cause genetic defects
H350 - May cause cancer
H360 - May damage fertility or the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe mist, vapors
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear eye protection, protective clothing, protective gloves
P308+P313 - If exposed or concerned: Get medical advice/attention
P314 - Get medical advice/attention if you feel unwell
P405 - Store locked up
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%
Distillates, petroleum, petroleum residues vacuum	(CAS No) 68955-27-1	85 - 100
Pitch, coal tar, high-temperature	(CAS No) 65996-93-2	1 - 5
Toluene	(CAS No) 108-88-3	0 - 1
Naphthalene	(CAS No) 91-20-3	0 - 1
Benzene	(CAS No) 71-43-2	0 - 1
Naphtha, coal, solvent-refining	(CAS No) 68476-79-9	<= 1
Hydrogen Sulfide	(CAS No) 7783-06-4	< 1

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
First-aid measures after inhalation	: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.
First-aid measures after skin contact	: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.
First-aid measures after eye contact	: IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.
First-aid measures after ingestion	: IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: May cause genetic defects. May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: May cause skin irritation.
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.
Chronic symptoms	: May cause genetic defects. May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child. . Causes damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Carbon dioxide. Dry powder. Water spray. Water fog.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Heating may cause a fire.
Explosion hazard	: Heating may cause an explosion.
Reactivity	: No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Precautionary measures fire	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.
Other information	: Material will float and can be re-ignited on surface of water. Vapors may travel long distances along ground before igniting/flashing back to vapor source. Vapors may concentrate in confined areas. Vapors may form flammable and explosive mixture with air. Vapors may accumulate in low areas. Flowing product can be ignited by self-generated static electricity.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).
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6.1.1. For non-emergency personnel

Protective equipment	: Wear Protective equipment as described in Section 8.
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Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Ventilate area. Eliminate ignition sources. Wear suitable protective clothing. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. Recover as much product as possible with vacuum truck or pump to storage/salvage vessels. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Do not handle until all safety precautions have been read and understood. Use explosion-proof equipment. Take precautionary measures against static discharge. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only in well-ventilated areas. Avoid breathing vapors, mist. Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Immediately rinse contaminated clothing thoroughly with water. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Use explosion-proof equipment. Take precautionary measures against static discharge. Containers, even those that have been emptied, can contain explosive vapors.

Storage conditions : Store in a dry, cool and well-ventilated place. Keep the container tightly closed. Avoid temperature extremes. Store in original container. Keep away from ignition sources. Ground and bond all transfer and storage equipment.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Distillates, petroleum, petroleum residues vacuum (68955-27-1)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Toluene (108-88-3)	
ACGIH TWA (ppm)	20
Remark (ACGIH)	Visual impair; female repro;
Naphthalene (91-20-3)	
ACGIH TWA (ppm)	10
ACGIH STEL (ppm)	15
Remark (ACGIH)	5 TWA notice of intended changes TLVs
OSHA PEL (TWA) (mg/m ³)	50
OSHA PEL (TWA) (ppm)	10
Benzene (71-43-2)	
ACGIH TWA (ppm)	0.5
ACGIH STEL (ppm)	2.5
OSHA PEL (TWA) (ppm)	1
OSHA PEL (STEL) (ppm)	5 (see 29 CFR 1910.1028)
OSHA PEL (Ceiling) (ppm)	25
Pitch, coal tar, high-temperature (65996-93-2)	
ACGIH TWA (mg/m ³)	0.2 (as benzene soluble aerosol)
OSHA PEL (TWA) (mg/m ³)	0.2 (benzene soluble fraction)
Naphtha, coal, solvent-refining (68476-79-9)	
Remark (ACGIH)	OELs not established

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Naphtha, coal, solvent-refining (68476-79-9)

Remark (OSHA)

OELs not established

8.2. Exposure controls

Appropriate engineering controls

: 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 with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

: Gloves. Protective goggles. Wear chemically impervious apron over labcoat and full coverage clothing.



Hand protection

: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. . Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection

: Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection

: Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection

: Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Viscous liquid.
Color	: Brown. Black. Dark green.
Odor	: Hydrocarbon-asphaltic. aromatic. Petroleum-like odor.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 204 - 649 °C (400 - 1200 °F)
Flash point	: 104 - 160 °C (220 - 320 °F)
Auto-ignition temperature	: 260 °C (500 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: < 5.17 mm Hg (0.1 psi) @ 38 °C (100 °F)
Relative vapor density at 20 °C	: > 1 (Air = 1)
Relative density	: 1 - 1.1 @ 15.5 °C (60 °F)
Solubility	: Negligible.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1 - 7 vol %

9.2. Other information

VOC content : Negligible

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

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10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid contact with : Ignition sources. Incompatible materials.

10.5. Incompatible materials

Oxidizing agent. Strong acids. caustic materials. Halogens.

10.6. Hazardous decomposition products

Thermal decomposition generates : Organic hydrocarbons. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Distillates, petroleum, petroleum residues vacuum (68955-27-1)	
LD50 oral rat	4320 mg/kg
LD50 dermal rabbit	> 2000
Toluene (108-88-3)	
LD50 oral rat	2600 mg/kg
LD50 dermal rabbit	12000 mg/kg
LC50 inhalation rat (mg/l)	12.5 mg/l/4h
Naphthalene (91-20-3)	
LD50 oral rat	1110 mg/kg
LD50 dermal rabbit	1120 mg/kg
LC50 inhalation rat (mg/l)	> 340 mg/m ³ 1 h
ATE CLP (oral)	500.000 mg/kg bodyweight
Benzene (71-43-2)	
LD50 dermal rabbit	> 8200 mg/kg
LC50 inhalation rat (mg/l)	44.66 mg/l/4h (vapor)

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : May cause genetic defects.
Carcinogenicity : May cause cancer.

Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen
Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
Pitch, coal tar, high-temperature (65996-93-2)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : May damage fertility or the unborn child.
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard : Not classified
Symptoms/injuries after inhalation : May cause respiratory irritation.
Symptoms/injuries after skin contact : May cause skin irritation.
Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion : May cause gastrointestinal irritation.
Chronic symptoms : May cause genetic defects. May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child. . Causes damage to organs through prolonged or repeated exposure.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No information available.

12.2. Persistence and degradability

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Persistence and degradability : No information available.

12.3. Bioaccumulative potential

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Bioaccumulative potential : No information available.

12.4. Mobility in soil

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Ecology - soil : No information available.

12.5. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1202 Gas oil, 3, III

UN-No.(DOT) : 1202

DOT NA no. : UN1202

Proper Shipping Name (DOT) : Gas oil

Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : III - Minor Danger

DOT Quantity Limitations Passenger aircraft/rail : 60 L
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L
CFR 175.75)

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory
All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list

SARA Section 311/312 Hazard Classes : Delayed (chronic) health hazard
Fire hazard

Hydrogen sulfide (7783-06-4)

Section 302 (EHS) TPQ : 500 lb

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Section 304 EHS RQ	100 lb
CERCLA RQ	100 lb
Section 313	Listed on US SARA Section 313
Toluene (108-88-3)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	1000 lb
Section 313	Listed on US SARA Section 313
Naphthalene (91-20-3)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	100 lb
Section 313	Listed on US SARA Section 313
Xylenes (o-, m-, p- isomers) (1330-20-7)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	100 lb
Section 313	Listed on US SARA Section 313
Benzene (71-43-2)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	10 lb
Section 313	Listed on US SARA Section 313

15.2. International regulations

CANADA

Unleaded Gasoline (NO Ethanol)
All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)

15.3. US State regulations

California Proposition 65

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Toluene (108-88-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	Yes	No	No	7000b µg/day
Naphthalene (91-20-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	5.8 µg/day
Benzene (71-43-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	Yes	No	Yes	6.4 (oral) µg/day 13 (inhalation) µg/day
Toluene (108-88-3)				
U.S. - Massachusetts - Right To Know List				

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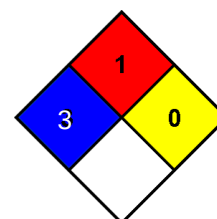
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Toluene (108-88-3)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List
Naphthalene (91-20-3)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Benzene (71-43-2)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Pitch, coal tar, high-temperature (65996-93-2)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List
Hydrogen sulfide (7783-06-4)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.
Revision date : 05/12/2015
Other information : Author: BCS.

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard : 1 - Must be preheated before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3*
Flammability : 1
Physical : 0
Personal Protection :

Information contained herein was based on data and compiled from reference materials and other sources believed to be reliable and is offered in good faith. However, the SDS's accuracy or completeness is not guaranteed by Archon, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.