SAFETY DATA SHEET

MOTOR MEDIC® LEAD SUBSTITUTE

Version	Revision Date:	SDS Number:	Date of last issue: 10/26/2018
5.0	02/22/2019	600000001461	Date of first issue: 07/03/2018

SECTION 1. IDENTIFICATION

Product name	:	MM LEAD SUBSTITUTE 12/12 OZ
Product code	:	M5012

Manufacturer or supplier's details

Company name of supplier	:	Niteo Products, LLC
Address	:	Dallas TX 75225
Email Address	:	EHS@niteoproducts.com
Telephone	:	1-844-696-4836
Emergency telephone number	:	1-800-424-9300 / 1-703-741-5970

Recommended use of the chemical and restrictions on use

Recommended use	:	Fuels and fuel additives
Restrictions on use	:	Use only outdoors or in a well-ventilated area.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids	:	Category 3
Acute toxicity (Inhalation)	:	Category 3
Skin irritation	:	Category 2
Carcinogenicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure	:	Category 2 (Liver, thymus, Bone marrow)
Aspiration hazard	:	Category 1

GHS label elements

Hazard pictograms :

Signal word	:	Danger
Hazard statements	:	Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. Toxic if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. May cause damage to organs (Liver, thymus, Bone marrow) through prolonged or repeated exposure.
Precautionary statements	:	**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. **Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor. IF exposed or concerned: Get medical advice/ attention. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. **Storage:** Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. **Disposal:** Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Diesel fuel no. 2	68476-34-6	>= 50 - < 100
Kerosene	8008-20-6	>= 0 - < 50
Petroleum Naphtha	64742-94-5	>= 5 - < 10
Alkanes, C10-C20 branched and linear	928771-01-1	>= 1 - < 5
Naphthalene	91-20-3	>= 1 - < 5
Methylcyclopentadienyl Manganese Tricarbonyl	12108-13-3	>= 0.1 - < 1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.

If inhaled : Move to fresh air.
Call a physician or poison control centre immediately.
If unconscious, place in recovery position and seek medical advice.
Keep patient warm and at rest.
If symptoms persist, call a physician.

In case of skin contact : If on clothes, remove clothes.
Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.
If skin irritation persists, call a physician.

In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.

If swallowed : Obtain medical attention.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : Inhalation or ingestion of high levels of this material (or a component) may cause a hemolytic reaction. Complications of acute intravascular hemolysis include anemia, leukocytosis, fever, hemoglobinuria, jaundice, renal insufficiency, and sometimes disturbances in liver function.
Fats, for example, baby oil on the skin or ingested oil, facilitate absorption of naphthalene.
May be fatal if swallowed and enters airways.

Causes skin irritation.
Toxic if inhaled.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Carbon dioxide (CO2) Dry chemical Alcohol-resistant foam
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire-fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides
Specific extinguishing methods	:	Product is compatible with standard fire-fighting agents.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Avoid breathing dust. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Evacuate personnel to safe areas. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, ver-

miculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.
Keep away from open flames, hot surfaces and sources of ignition.
Use only explosion-proof equipment.
Do not spray on a naked flame or any incandescent material.

Advice on safe handling : Open drum carefully as content may be under pressure.
Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Take precautionary measures against static discharges.
Avoid contact with skin and eyes.
Dispose of rinse water in accordance with local and national regulations.
Container hazardous when empty.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
No smoking.
Prevent unauthorized access.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Diesel fuel no. 2	68476-34-6	TWA (Inhalable fraction and vapor)	100 mg/m3 (total hydrocarbons)	ACGIH
Kerosene	8008-20-6	TWA	100 mg/m3	NIOSH REL
		TWA	500 ppm	OSHA Z-1

			2,000 mg/m3	
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m3	OSHA P0
Petroleum Naphtha	64742-94-5	TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
Naphthalene	91-20-3	TWA	10 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	NIOSH REL
		ST	15 ppm 75 mg/m3	NIOSH REL
		TWA	10 ppm 50 mg/m3	OSHA Z-1
		TWA	10 ppm 50 mg/m3	OSHA P0
		STEL	15 ppm 75 mg/m3	OSHA P0
Methylcyclopentadienyl Manganese Tricarbonyl	12108-13-3	TWA	0.2 mg/m3 (Manganese)	ACGIH
		TWA	0.2 mg/m3 (Manganese)	NIOSH REL
		TWA	0.2 mg/m3 (Manganese)	OSHA P0
		C	5 mg/m3 (Manganese)	OSHA Z-1

Hazardous components without workplace control parameters

Components	CAS-No.
Alkanes, C10-C20 branched and linear	928771-01-1

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection

Remarks : Wear resistant gloves (consult your safety equipment supplier). The suitability for a specific workplace should be discussed with the producers of the protective gloves. Discard gloves that show tears, pinholes, or signs of wear.

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Choose body protection according to the amount and con-

centration of the dangerous substance at the work place.
Wear as appropriate:
Impervious clothing
Flame-resistant clothing
Safety shoes

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with skin, eyes and clothing.
When using do not smoke.
Wash hands before breaks and immediately after handling the product.
When using do not eat or drink.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	red
Odour	:	hydrocarbon-like
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	154 - 366 °C Value for Component
Flash point	:	58 °C Method: closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	2.2 hPa
Relative vapour density	:	No data available
Density	:	7.13 lb/gal
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available

Decomposition temperature	:	No data available
Viscosity		
Viscosity, kinematic	:	No data available
Molecular weight	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong bases Strong acids Strong oxidizing agents
Hazardous decomposition products	:	Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact
Ingestion

Acute toxicity

Toxic if inhaled.

Product:

Acute oral toxicity	:	Acute toxicity estimate: 4,688 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 0.55 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

Diesel fuel no. 2:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): 4.1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 4,300 mg/kg
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Kerosene:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 420

Acute inhalation toxicity : LC50 (Rat): > 5.8 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Petroleum Naphtha:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 3,800 mg/m3
Exposure time: 4 h
Test atmosphere: vapour
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Alkanes, C10-C20 branched and linear:

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Naphthalene:

Acute oral toxicity : LD50 (Mouse, male): 533 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 0.4 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rat, male and female): > 2,500 mg/kg

Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Methylcyclopentadienyl Manganese Tricarbonyl:

Acute oral toxicity	:	LD50 (Rat, male): 51.8 mg/kg LD50 (Rat, male and female): 58 mg/kg
Acute inhalation toxicity	:	LC50 (Rat, male): 0.076 mg/l Exposure time: 4 h Test atmosphere: vapour LC50 (Rat, male): 0.229 - 0.271 mg/l Exposure time: 1 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 (Rabbit): 140 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks: May cause skin irritation and/or dermatitis.

Components:

Diesel fuel no. 2:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Irritating to skin.

Kerosene:

Result: Irritating to skin.

Petroleum Naphtha:

Result: Irritating to skin.

Naphthalene:

Result: Possibly irritating to skin

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:

Diesel fuel no. 2:

Species: Rabbit
Result: Possibly irritating to eyes

Method: OECD Test Guideline 405

Kerosene:

Result: Possibly irritating to eyes

Petroleum Naphtha:

Result: Irritating to eyes.

Naphthalene:

Result: Possibly irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Diesel fuel no. 2:

Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.
Method: OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.

Components:

Diesel fuel no. 2:

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: positive
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Result: negative

Carcinogenicity

Suspected of causing cancer.

Components:

Diesel fuel no. 2:

Carcinogenicity - Assessment	:	Limited evidence of carcinogenicity in animal studies

Naphthalene:

Carcinogenicity - Assessment	:	Limited evidence of carcinogenicity in inhalation studies with animals.

IARC	Group 2B: Possibly carcinogenic to humans	
	Naphthalene	91-20-3
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
NTP	Reasonably anticipated to be a human carcinogen	
	Naphthalene	91-20-3

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

Kerosene:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs (Liver, thymus, Bone marrow) through prolonged or repeated exposure.

Components:

Diesel fuel no. 2:

Target Organs: Liver
Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: thymus
Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: Bone marrow
Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Diesel fuel no. 2:

May be fatal if swallowed and enters airways.

Kerosene:

May be fatal if swallowed and enters airways.

Petroleum Naphtha:
May be fatal if swallowed and enters airways.

Alkanes, C10-C20 branched and linear:
May be fatal if swallowed and enters airways.

Further information

Product:
Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with all applicable local, state and federal regulations.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Dangerous goods descriptions (if indicated below) may not reflect quantity, end-use, or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

International Regulations

IATA-DGR

UN/ID No.	:	UN 1268
Proper shipping name	:	Petroleum distillates, n.o.s.
Class	:	3
Packing group	:	III
Labels	:	3
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1268

Proper shipping name	:	PETROLEUM DISTILLATES, N.O.S.
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number	:	UN 1268
Proper shipping name	:	Petroleum distillates, n.o.s.
Class	:	3
Packing group	:	III
Labels	:	3
ERG Code	:	128
Marine pollutant	:	no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Xylene	1330-20-7	100	100 (F003)
Ethylbenzene	100-41-4	100	100 (F003)
Benzene	71-43-2	10	10 (D018)
Naphthalene	91-20-3	100	3009

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methylcyclopentadienyl Manganese Tricarbonyl	12108-13-3	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard

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

Naphthalene	91-20-3	>= 1 - < 5 %

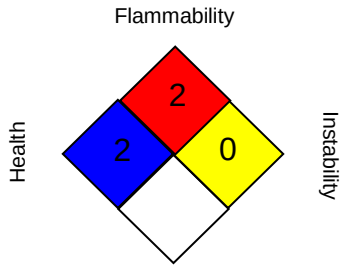
California Prop. 65

WARNING: This product can expose you to chemicals including Naphthalene, Ethylbenzene, Benzene, which is/are known to the State of California to cause cancer, and Benzene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Further information

NFPA:



Revision Date : 02/22/2019

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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