SAFETY DATA SHEET

MOTOR MEDIC® DE-ICER FOR AUTO & TRUCK AERO

Version	Revision Date:	SDS Number:	Date of last issue: 08/23/2018
3.0	09/06/2018	600000000431	Date of first issue: 05/23/2016

SECTION 1. IDENTIFICATION

Product name	:	MM AUTO/TRK WNDSHLD DEICER AERO 12/12OZ
Product code	:	DE1 DE1

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	:	DEICER
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 aerosols	:	Category 2
Acute toxicity (Oral)	:	Category 3
Acute toxicity (Inhalation)	:	Category 3
Acute toxicity (Dermal)	:	Category 3
Specific target organ toxicity - single exposure	:	Category 1 (Central nervous system, Eyes)
Specific target organ toxicity - repeated exposure (Oral)	:	Category 2 (Kidney, Liver)

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable aerosol.
Toxic if swallowed, in contact with skin or if inhaled.
Causes damage to organs (Central nervous system, Eyes).
May cause damage to organs (Kidney, Liver) through prolonged or repeated exposure if swallowed.

Precautionary statements :

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing.

Response:

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
IF exposed: Call a POISON CENTER or doctor/ physician.
Take off contaminated clothing and wash before reuse.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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)
Methanol	67-56-1	>= 50 - < 70
Ethylene Glycol	107-21-1	>= 5 - < 10
Carbon dioxide	124-38-9	>= 1 - < 5

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. Do not leave the victim unattended.
If inhaled	:	If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	:	Call a physician or poison control centre immediately.
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	:	Get medical attention immediately. Rinse mouth with water. 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	:	Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs. May cause damage to organs through prolonged or repeated exposure if swallowed. This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnia, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Ox-

aluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis.

Notes to physician : This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

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 firefighting : 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.
Comply with all applicable local, state and federal regulations.

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, vermiculite) 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).
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.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Take precautionary measures against static discharges.
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 : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
No smoking.

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 parame-ters / Permissible concentration	Basis
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL
		ST	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHA Z-1
		STEL	250 ppm 325 mg/m3	OSHA P0
		TWA	200 ppm 260 mg/m3	OSHA P0
Ethylene Glycol	107-21-1	C (Aerosol only)	100 mg/m3	ACGIH
		C	50 ppm 125 mg/m3	OSHA P0
Carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m3	NIOSH REL
		ST	30,000 ppm 54,000 mg/m3	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m3	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m3	OSHA P0
		STEL	30,000 ppm 54,000 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI

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 : Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Use NIOSH approved respiratory protection.

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 concentration of the dangerous substance at the work place. Wear as appropriate: Impervious clothing Flame-resistant clothing Safety shoes Remove and wash contaminated clothing before re-use.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	aerosol
Odour	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	64.7 °C (1,013 hPa) Value for Component
Flash point	:	12 °C The value is calculated
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	36 %(V) The value is calculated
Lower explosion limit / Lower flammability limit	:	3.2 %(V) The value is calculated

Vapour pressure	:	169.3164 hPa (25 °C) Value for Component
Density	:	0.7972 g/cm3 (15.56 °C)
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	No data available
Heat of combustion	:	estimated 15.35 kJ/g
VOC % By Weight	:	68 %

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	:	Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Aldehydes Alkali metals Alkaline earth metals Aluminium Lead Strong acids Strong bases Strong oxidizing agents Sulphur compounds Zinc Peroxides
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 swallowed, in contact with skin or if inhaled.

Product:

Acute oral toxicity	:	Acute toxicity estimate: 159.14 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 0.8 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: 479.17 mg/kg Method: Calculation method

Components:

Methanol:

Acute oral toxicity	:	LDLo (Humans): 300 mg/kg Assessment: The component/mixture is toxic after single ingestion.
Acute inhalation toxicity	:	Test atmosphere: dust/mist Assessment: The component/mixture is toxic after short term inhalation.
Acute dermal toxicity	:	LD50 (Rabbit): 12,800 mg/kg Assessment: The component/mixture is toxic after single contact with skin.

Ethylene Glycol:

Acute oral toxicity	:	LD50 (Rat): 6,140 mg/kg LD50 (Humans): estimated 1.56 g/kg Assessment: The component/mixture is moderately toxic after single ingestion.
Acute inhalation toxicity	:	LC50 (Rat): 10.9 mg/l Exposure time: 1 h Test atmosphere: dust/mist Assessment: No adverse effect has been observed in acute inhalation toxicity tests.
Acute dermal toxicity	:	LD50 (Rabbit): 9,530 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Methanol:

Species: Rabbit
Result: No skin irritation

Ethylene Glycol:

Result: Mild skin irritation

Carbon dioxide:

Assessment: No skin irritation
Result: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

Methanol:

Species: Rabbit
Result: Possibly irritating to eyes

Ethylene Glycol:

Result: Possibly irritating to eyes

Carbon dioxide:

Result: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Methanol:

Test Type: Maximisation Test
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Method: OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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 No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Causes damage to organs (Central nervous system, Eyes).

Components:

Methanol:

Target Organs: Central nervous system, Eyes
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

STOT - repeated exposure

May cause damage to organs (Kidney, Liver) through prolonged or repeated exposure if swallowed.

Components:

Ethylene Glycol:

Exposure routes: Ingestion
Target Organs: Kidney, Liver
Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

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
Not permitted for transport

IMDG-Code

UN number	:	UN 1950
Proper shipping name	:	Aerosols
Class	:	2.1
Subsidiary risk	:	6.1
Packing group	:	Not assigned by regulation
Labels	:	2.1 (6.1)
EmS Code	:	F-D, S-U
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 1950
Proper shipping name	:	Aerosols
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	2.1
ERG Code	:	126
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)
Ethylene Glycol	107-21-1	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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)
Specific target organ toxicity (single or repeated exposure)

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

Methanol	67-56-1	>= 50 - < 70 %
Ethylene Glycol	107-21-1	>= 5 - < 10 %

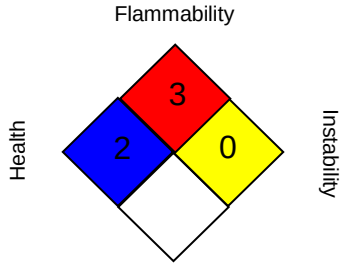
California Prop. 65

WARNING: This product can expose you to chemicals including Methanol, Ethylene Glycol, Ethylene glycol monomethyl ether, 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:



Special hazard.

Revision Date : 09/06/2018

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.