

1. Identification

Product identifier Premium Windshield Deicer and Cleaner [-30 °F]

Other means of identification

FIR No. 189337

Recommended use Windshield washer and deicer fluid

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Ford Motor Company
Address Attention: SDS Information, P.O. Box 1899
 Dearborn, Michigan 48121
 USA
Telephone 1-800-392-3673
SDS Information 1-800-448-2063 (USA and Canada)
 fordsds.com

Emergency telephone numbers

Poison Control Center: USA and Canada: 1-800-959-3673
 INFOTRAC (Transportation): USA and Canada 1-800-535-5053

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 3
	Reproductive toxicity	Category 1B
	Specific target organ toxicity, single exposure	Category 1
	Specific target organ toxicity, repeated exposure	Category 1
	Aspiration hazard	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapor. Toxic if swallowed. May be fatal if swallowed and enters airways. Toxic in contact with skin. Toxic if inhaled. May damage fertility or the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

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 mist or vapor. Wash 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/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. 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. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	May be fatal or cause blindness if swallowed. Cannot be made nonpoisonous. May irritate eyes and skin. May cause irritation of respiratory tract. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
METHANOL		67-56-1	33.5
ETHYLENE GLYCOL		107-21-1	2.3

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
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 if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Headache. Dizziness. Nausea, vomiting. Direct contact with eyes may cause temporary irritation. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Keep people away from and upwind of spill/leak. Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Local authorities should be advised if significant spillages cannot be contained. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Pregnant or breastfeeding women must not handle this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Use non-sparking tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Take precautionary measures against static discharges. Explosion-proof general and local exhaust ventilation. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Wear appropriate personal protective equipment. For personal protection, see Section 8 of the SDS.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
METHANOL (CAS 67-56-1)	PEL	260 mg/m ³ 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
ETHYLENE GLYCOL (CAS 107-21-1)	STEL	10 mg/m ³	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction
METHANOL (CAS 67-56-1)	STEL	250 ppm	
	TWA	200 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
METHANOL (CAS 67-56-1)	STEL	325 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
		250 ppm
	TWA	260 mg/m ³
		200 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
METHANOL (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

METHANOL (CAS 67-56-1) Skin designation applies.

US - Tennessee OELs: Skin designation

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

Appropriate engineering controls

Use adequate ventilation to control airborne concentrations below the exposure limits/guidelines. If user operations generate a vapor, dust and/or mist, use process enclosure, appropriate local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits/guidelines.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Suitable chemical protective gloves should be worn when the potential exists for skin exposure. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Nitrile or butyl rubber gloves are recommended.

Other Wear appropriate chemical resistant clothing if applicable.

Respiratory protection If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard 29 CFR 1910.134 and/or Canadian Standard CSA Z94.4.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state Liquid.

Form Liquid.

Color Purple

Odor Alcoholic.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 165.92 - 194 °F (74.4 - 90 °C)

Flash point 86.0 °F (30.0 °C) CLOSED CUP

Evaporation rate	> 1 (BuAc=1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	6 %
Explosive limit - upper (%)	36 %
Vapor pressure	Not available.
Vapor density	> 1 (AIR=1)
Relative density	0.94
Relative density temperature	68 °F (20 °C)
Solubility(ies)	
Solubility (water)	SOLUBLE
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	< 10 cSt
Viscosity temperature	104 °F (40 °C)
Other information	
VOC	35 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Toxic if inhaled. May cause damage to organs by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Skin contact	Toxic in contact with skin.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Toxic if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. May be fatal or cause blindness if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. Headache. Dizziness. Nausea, vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Toxic if inhaled. Toxic in contact with skin.

Components	Species	Calculated/Test Results
ETHYLENE GLYCOL (CAS 107-21-1)		
Acute		
Dermal		
LD50	Rabbit	9530 mg/kg
Oral		
LD50	Cat	1650 mg/kg

Components	Species	Calculated/Test Results
	Dog	> 8.81 g/kg
		5500 mg/kg
	Guinea pig	8.2 g/kg
	Mouse	14.6 g/kg
	Rat	5.89 g/kg
Other		
LD50	Mouse	10 g/kg
		5.8 g/kg
	Rat	5010 mg/kg
		3260 mg/kg
		2800 mg/kg

METHANOL (CAS 67-56-1)

Acute

Dermal

LD50

Rabbit

15800 mg/kg

Inhalation

LC50

Cat

85.41 mg/l, 4.5 Hours

43.68 mg/l, 6 Hours

Rat

64000 ppm, 4 Hours

87.5 mg/l, 6 Hours

Oral

LD50

Dog

8000 mg/kg

Monkey

2 g/kg

Mouse

7300 mg/kg

Rabbit

14.4 g/kg

Rat

5628 mg/kg

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization

Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

Reproductive toxicity

May damage fertility or the unborn child.

Specific target organ toxicity - single exposure

Causes damage to organs. Central nervous system. Liver. Optic nerves.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. Kidneys. Central nervous system. Liver. Optic nerves.

Aspiration hazard

May be fatal if swallowed and enters airways.

Chronic effects

Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicity

Components	Species	Calculated/Test Results
ETHYLENE GLYCOL (CAS 107-21-1)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 8050 mg/l, 96 hours
METHANOL (CAS 67-56-1)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) > 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 100 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

ETHYLENE GLYCOL	-1.36
METHANOL	-0.77

Mobility in soil No data available. This product is miscible in water and may not disperse in soil.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

<Unspecified>

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (METHYL ALCOHOL)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

<Unspecified>

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (METHYL ALCOHOL)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

<Unspecified>

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (METHYL ALCOHOL)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

DOT**IATA; IMDG****15. Regulatory information**

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

ETHYLENE GLYCOL (CAS 107-21-1) Listed.

METHANOL (CAS 67-56-1) Listed.

SARA 304 Emergency release notification

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Acute toxicity (any route of exposure) Reproductive toxicity Specific target organ toxicity (single or repeated exposure) Aspiration hazard
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SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
ETHYLENE GLYCOL	107-21-1	2.3
METHANOL	67-56-1	33.5

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

ETHYLENE GLYCOL (CAS 107-21-1)
METHANOL (CAS 67-56-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations**California Proposition 65**

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

California Proposition 65 - CRT: Listed date/Developmental toxin

METHANOL (CAS 67-56-1) Listed: March 16, 2012

International Inventories

All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

16. Other information, including date of preparation or last revision

Issue date 08-06-2018

Revision date 08-06-2018

Version 02

HMIS® ratings Health: 2
Flammability: 2
Physical hazard: 0

NFPA ratings Health: 2
Flammability: 2
Instability: 0

Preparation Information and Disclaimer

This document was prepared by FCSD-Toxicology, Ford Motor Company, Fairlane Business Park IV, 17225 Federal Drive, Allen Park, MI 48101, USA, based in part on information provided by the manufacturer. The information on this data sheet represents our current data and is accurate to the best of our knowledge as to the proper handling of this product under normal conditions and in accordance with the application specified on the packaging and/or technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user. To the extent that there are any differences between this product's Safety Data Sheet (SDS) and the consumer packaged product labels, the SDS should be followed.

Revision information This document has undergone significant changes and should be reviewed in its entirety.

Part number(s) ZC-32DEICER-DG