



SAFETY DATA SHEET

according to regulation (EC) No. 1907/2006 (REACH), Appendix II

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

1.1. Product identifier

Trade name or designation of the mixture Windscreen De-Icer
Registration number -
Synonyms None.
SDS number 7707
Product code Ford Internal Ref.: 126008
Issue date 31-July-2014
Version number 3.0
Revision date 03-September-2014
Supersedes date 31-July-2014
Product use Public use

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

Identified uses De-icer
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company name Ford Motor Company Ltd.
Address Parts Distribution Centre
Royal Oak Way South
NN11 8NT Daventry, Northants
United Kingdom
Telephone number +44 1327 305 198
Address Ford-Werke GmbH
Edsel-Ford-Str. 2-14
50769 Köln
Germany
Telephone number +49 221 90-33333
e-mail HSE@rle.de
1.4 Emergency telephone number +44 1327 305 198 (mo. - fr. 09:00 - 16:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

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

Classification F;R11

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Flammable liquids Category 2 H225 - Highly flammable liquid and vapour.

Health hazards

Serious eye damage/eye irritation Category 2 H319 - Causes serious eye irritation.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms



Signal word Danger

Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

Precautionary statements

Prevention

P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P280 Wear eye/face protection.

Response

P101 If medical advice is needed, have product container or label at hand.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

2.3. Other hazards The mixture contains no substance that fulfils the criteria of a PBT- or vPvB substance.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Ethanol	80 - < 90	64-17-5 200-578-6	01-2119457610-43-0000	603-002-00-5	Seveso 7b
Classification:	DSD: F;R11				
	CLP: Flam. Liq. 2;H225, Eye Irrit. 2;H319				
2-Butanone	1 - < 3	78-93-3 201-159-0	01-2119457290-43-0000	606-002-00-3	#, Seveso 7b
Classification:	DSD: F;R11, Xi;R36, R66-67				
	CLP: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336				
Ethane-1,2-diol	1 - < 3	107-21-1 203-473-3	01-2119456816-28-0000	603-027-00-1	#
Classification:	DSD: Xn;R22				
	CLP: Acute Tox. 4;H302, STOT RE 2;H373				

List of abbreviations and symbols that may be used above:

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

#: This substance has been assigned Community workplace exposure limit(s).

Composition comments The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information

Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

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

Rinse mouth. Get medical attention if symptoms occur.

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

Headache. Irritation of nose and throat. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing. Skin irritation.

4.3. Indication of any 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 under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards

Highly flammable liquid and vapour.

5.1. Extinguishing media

Suitable extinguishing media

Alcohol resistant foam. Water spray. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Not available.

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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

For emergency responders

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Dilute with plenty of water. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil etc) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. 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.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

None under normal conditions. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

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 original tightly closed container. Store in a well-ventilated place. Refrigeration recommended.

Keep out of the reach of children. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
1,2-Propanediol (CAS 57-55-6)	TWA	474 mg/m3	Total vapour and particulates.
		10 mg/m3	Particulate.
		150 ppm	Total vapour and particulates.
2-Butanone (CAS 78-93-3)	STEL	899 mg/m3	
	TWA	300 ppm	
		600 mg/m3	
Ethane-1,2-diol (CAS 107-21-1)	STEL	200 ppm	
	TWA	104 mg/m3	Vapor.
		40 ppm	Vapor.
52 mg/m3		Vapor.	
Ethanol (CAS 64-17-5)	TWA	10 mg/m3	Particulate.
		20 ppm	Vapor.
		1920 mg/m3	
		1000 ppm	

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
2-Butanone (CAS 78-93-3)	STEL	900 mg/m3
	TWA	300 ppm
		600 mg/m3
Ethane-1,2-diol (CAS 107-21-1)	STEL	200 ppm
	TWA	104 mg/m3
		40 ppm
52 mg/m3		
		20 ppm

Biological limit values

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling time
2-Butanone (CAS 78-93-3)	70 umol/l	Butan-2-one	Urine	*

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

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Components	Type	Route	Value	Form
2-Butanone (CAS 78-93-3)	Consumer	Dermal	412 mg/kg/BW/day	Long term exposure systemic effects
		Inhalation	106 mg/m3	Long term exposure systemic effects
		Oral	31 mg/kg/BW/day	Long term exposure systemic effects
	Industry	Dermal	1161 mg/kg/BW/day	Long term exposure systemic effects
		Inhalation	600 mg/m3	Long term exposure systemic effects
Ethane-1,2-diol (CAS 107-21-1)	Consumer	Dermal	53 mg/kg/day	
		Inhalation	7 mg/m3	
	Industry	Dermal	106 mg/kg/day	
		Inhalation	35 mg/m3	
Ethanol (CAS 64-17-5)	Consumer	Dermal	206 mg/kg/BW/day	Long term exposure systemic effects
		Inhalation	950 mg/m3	Short term exposure systemic effects
		Inhalation	114 mg/m3	Long term exposure systemic effects
	Industry	Oral	87 mg/kg/BW/day	Long term exposure systemic effects
		Dermal	343 mg/kg/BW/day	Long term exposure systemic effects

Components	Type	Route	Value	Form
		Inhalation	950 mg/m ³	Long term exposure
		Inhalation	1900 mg/m ³	Short term exposure

Predicted no effect concentrations (PNECs)

Components	Type	Route	Value	Form
2-Butanone (CAS 78-93-3)	Not applicable	Freshwater	55.8 mg/l	
		Seawater	55.8 mg/l	
		Sediment	0.285 mg/g	Fresh water
		Sediment	0.285 mg/g	Sea water
		Soil	0.0225 mg/g	
		STP	709 mg/l	
		Water	55.8 mg/l	intermittent release
Ethane-1,2-diol (CAS 107-21-1)	Not applicable	Freshwater	10 mg/l	
		Seawater	1 mg/l	
		Soil	1.53 mg/l	
		STP	199.5 mg/l	
		Water	55.8 mg/l	intermittent release
Ethanol (CAS 64-17-5)	Not applicable	Freshwater	0.96 mg/l	
		Seawater	0.79 mg/l	
		Sediment	0.0036 mg/g	freshwater
		Sediment	0.0029 mg/g	Seawater
		Soil	0.00063 mg/g	
		STP	580 mg/l	
		Water	2.75 mg/l	intermittent release

Exposure guidelines

UK EH40 WEL: Skin designation

2-Butanone (CAS 78-93-3)	Can be absorbed through the skin.
Ethane-1,2-diol (CAS 107-21-1)	Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Eye wash fountain and emergency showers are recommended.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection

Butyl rubber.

Glove thickness 0,7 mm.
Break through time >= 480 min.

Glove recommendation: Butoject® 898 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.

Hand protection in case of splash contact:
Nitrile.

Glove thickness 0,4 mm.
Break through time 120 - 239 min.

Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.

The protective gloves to be used must comply with the specification of EU directive 89/686/EC and the resultant standard EN374. The above given information is based on laboratory test in line with EN374. The recommendation is only valid for the supplied product and the stated application. Special working conditions, like heat or mechanical strain, which deviate from the test conditions, can reduce the protective effect provided by the recommended glove.

- Other

Wear suitable protective clothing.

Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	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.
Environmental exposure controls	Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Blue
Odour	Alcoholic
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 78 °C (> 172.4 °F)
Flash point	15.0 °C (59.0 °F)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	miscible
Solubility (other)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidizing properties	Not available.

9.2. Other information

Density	0.83 g/cm ³
VOC (EU)	92 - 93 %
VOC (CH)	84 - 85 %

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
10.5. Incompatible materials	Strong acids, alkalies and oxidizing agents.
10.6. Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.
Skin contact No adverse effects due to skin contact are expected.
Eye contact Causes serious eye irritation.
Ingestion Expected to be a low ingestion hazard.

Symptoms Direct contact with eyes may cause temporary irritation.

11.1. Information on toxicological effects

Product	Species	Test results
Windscreen De-Icer (CAS Mixture)		
Acute		
<i>Oral</i>		27472 - 50000 mg/kg (calcd. ATE)
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitisation	No information available.	
Skin sensitisation	No information available.	
Germ cell mutagenicity	No information available.	
Carcinogenicity	Based on available data, the classification criteria are not met.	
Reproductive toxicity	No information available.	
Specific target organ toxicity - single exposure	No information available.	
Specific target organ toxicity - repeated exposure	No information available.	
Aspiration hazard	Based on available data, the classification criteria are not met.	
Mixture versus substance information	No information available.	
Other information	Not available.	

SECTION 12: Ecological information

12.1. Toxicity 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.

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential No data available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment The mixture contains no substance that fulfils the criteria of a PBT- or vPvB- substance.

12.6. 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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

EU waste code Waste codes should be assigned by the user based on the application for which the product was used.

16 01 14
15 01 10

Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1170
14.2. UN proper shipping name	ETHANOL
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Hazard No. (ADR)	33
Tunnel restriction code	D/E
14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Classification code	F1
14.7. Special provisions	144, 601

IATA

14.1. UN number	UN1170
14.2. UN proper shipping name	Ethanol
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
14.4. Packing group	II
Packaging instructions	353
14.5. Environmental hazards	No.
ERG Code	3L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.
14.7. Special provisions	Not available.

IMDG

14.1. UN number	UN1170
14.2. UN proper shipping name	ETHANOL
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
14.4. Packing group	II
14.5. Environmental hazards	
Marine pollutant	No
EmS	F-E, S-D
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
14.7. Special provisions	144

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**
Not listed.
- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II**
Not listed.
- Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

Other EU regulations

Directive 94/33/EC on the protection of young people at work
Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

2-Butanone (CAS 78-93-3)

Ethane-1,2-diol (CAS 107-21-1)

Ethanol (CAS 64-17-5)

EU Directive 96/82/EC - Control of Major Accident Hazards: Threshold quantities established for the application of Articles 6 and 7

2-Butanone (CAS 78-93-3)

5000 TONNES

Ethanol (CAS 64-17-5)

5000 TONNES

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R11 Highly flammable.

R22 Harmful if swallowed.

R36 Irritating to eyes.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure by ingestion.

Revision information

Training information

Disclaimer

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

Follow training instructions when handling this material.

The information in the sheet was written based on the best knowledge and experience currently available.

Attachment to the Safety Data Sheet



Product Name: Windscreen De-Icer
Ford Int. Ref. No.: 126008

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Involved Products:

	Finiscode	Part number	Container Size:
1.	1 713 170	A98SX 19G544 CA	500 ml
Part of Kit:			
	1 798 128	AU7J 19G469 AB	Winter Kit
	1 920 088	FU7J 19G469 AB	Winter Kit
	1 920 109	FU7J 19G469 BA	Winter Kit