SAFETY DATA SHEET

1. Identification

Ford

Motorcraft

Product identifier	Engine Shampoo and Degreaser
Other means of identification	
FIR No.	187340
Recommended use	Engine shampoo and degreaser
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/	Distributor information
Supplier	
Company Name Address Telephone	Ford Motor Company Attention: MSDS Information, P.O. Box 1899 Dearborn, Michigan 48121 USA 1-800-392-3673
MSDS Information	1-800-448-2063 msds@brownart.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 aerosols	Category 2
	Gases under pressure	Dissolved gas
Health hazards	Carcinogenicity	Category 2
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	
Label elements		
Signal word Hazard statement	Danger Flammable aerosol. Contains gas under press	ure: may evolode if heated. May be fatal if
nazaru statement		ausing cancer. Toxic to aquatic life. Toxic to aquatic
Precautionary statement		
Prevention	and understood. Keep away from heat/sparks/ spray on an open flame or other ignition sourc	handle until all safety precautions have been read open flames/hot surfaces No smoking. Do not e. Pressurized container: Do not pierce or burn, ent. Wear protective gloves/protective clothing/eye
Response	If swallowed: Immediately call a poison center advice/attention. Do NOT induce vomiting. Co	
Storage	Store locked up. Protect from sunlight. Store in not expose to temperatures exceeding 50°C/1	n a well-ventilated place. Protect from sunlight. Do 22°F.
Disposal	Dispose of contents/container in accordance v	vith local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)	May cause irritation of respiratory tract. May irritate eyes and skin. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May be harmful if absorbed through skin.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), hydrotreated light		64742-47-8	20 - < 30
2-BUTOXYETHANOL		111-76-2	1 - < 3
BUTANE		106-97-8	1 - < 3
PROPANE		74-98-6	1 - <= 3
Solvent naphtha (petroleum), heavy arom.		64742-94-5	1 - <= 3
ammonia, anhydrous		7664-41-7	< 1
NAPHTHALENE		91-20-3	< 1

Specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists. Take off contaminated clothing and wash before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. 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	Headache. Nausea, vomiting. Aspiration may cause pulmonary edema and pneumonitis.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
5. Fire-fighting measures	
Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Dry chemicals. 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	Contents under pressure. Pressurized container may explode when exposed to heat or flame. 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	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards Flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.

6. Accidental release measures

0. Accidental release meas	sules
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Avoid contact with eyes, skin, and clothing. 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 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.
	Large Spills: Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Scoop up used absorbent into drums or other appropriate container. Prevent product from entering drains. Following product recovery, flush area with water.
	Small Spills: 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.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.
7. Handling and storage	
Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Avoid breathing mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Keep away from heat and sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Secure cylinders in an upright position at all times, close all valves when not in use. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

8. Exposure controls/personal protection

Occupational exposure limits

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

Components	Туре	Value	
2-BUTOXYETHANOL (CAS 111-76-2)	PEL	240 mg/m3	
		50 ppm	
ammonia, anhydrous (CAS 7664-41-7)	PEL	35 mg/m3	
		50 ppm	
NAPHTHALENE (CAS 91-20-3)	PEL	50 mg/m3	
		10 ppm	
PROPANE (CAS 74-98-6)	PEL	1800 mg/m3	
		1000 ppm	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	PEL	400 mg/m3	
· · ·		100 ppm	

US. ACGIH Threshold Limit Value Components	с Туре		Va	alue
2-BUTOXYETHANOL (CAS	TWA		20) ppm
111-76-2) ammonia, anhydrous (CAS	STEL		35	5 ppm
7664-41-7)	TWA		25	5 ppm
BUTANE (CAS 106-97-8)	STEL			000 ppm
NAPHTHALENE (CAS 91-20-3)	TWA) ppm
US. NIOSH: Pocket Guide to Cher Components	nical Hazards Type		Va	alue
2-BUTOXYETHANOL (CAS	TWA		24	l mg/m3
111-76-2)	IWA			ppm
ammonia, anhydrous (CAS	STEL			7 mg/m3
7664-41-7)			25	-
	TWA			5 ppm
	IVVA			3 mg/m3
	T\A/A			5 ppm
BUTANE (CAS 106-97-8)	TWA			900 mg/m3
	T \A/A			00 ppm
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA		10	00 mg/m3
NAPHTHALENE (CAS 91-20-3)	STEL		75	5 mg/m3
			15	5 ppm
	TWA		50) mg/m3
			10) ppm
PROPANE (CAS 74-98-6)	TWA		18	300 mg/m3
			10	000 ppm
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA		40)0 mg/m3
, , , , , , , , , , , , , , , , , , ,			10	00 ppm
logical limit values				
ACGIH Biological Exposure Indic Components Value	es	Determinant	Specimen	Sampling Time
2-BUTOXYETHANOL (CAS 200 mg 111-76-2)	/g	Butoxyacetic acid (BAA),	Creatinine in urine	*
111-70-2)		with hydrolysis	unne	
* - For sampling details, please see	the source docu	ment.		
osure guidelines				
US - California OELs: Skin design	ation			
2-BUTOXYETHANOL (CAS 11	1-76-2)	Can be	absorbed throu	ugh the skin.
US - Minnesota Haz Subs: Skin de	,			
2-BUTOXYETHANOL (CAS 11 US - Tennessee OELs: Skin desig	1-76-2)		signation applie	es.
2-BUTOXYETHANOL (CAS 11 US ACGIH Threshold Limit Values	1-76-2)		absorbed throu	ugh the skin.
NAPHTHALENE (CAS 91-20-3)	Can be	absorbed throu	ugh the skin.
US NIOSH Pocket Guide to Chem 2-BUTOXYETHANOL (CAS 11	1-76-2)	Can be	absorbed throu	ugh the skin.
US. OSHA Table Z-1 Limits for Air 2-BUTOXYETHANOL (CAS 11		-)0) absorbed throu	ugh the skin.
trols Use	adequate ventil operations gen ilation, or other	ation to control airb erate a vapor, dust engineering contro	orne concentra and/or mist, us	tions below the exposure limits/guidelines. be process enclosure, local exhaust porne levels below the recommended
expr	osure limits/guid	elines.		

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 prolonged or repeated 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 gloves are recommended.
Other	Wear suitable protective clothing. 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	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	Aerosol.
Color	Amber.
Odor	Not available.
Odor threshold	Not available.
рН	7 ASTM D1293
pH concentration	1 % v/v
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	-20.2 °F (-29.0 °C) PMCC
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or expl	losive limits
Explosive limit - lower (%)	0.7 %
Explosive limit - lower (%) Explosive limit - upper (%)	0.7 % 10.6 %
• • • • •	
Explosive limit - upper (%)	10.6 %
Explosive limit - upper (%) Vapor pressure	10.6 % Not available.
Explosive limit - upper (%) Vapor pressure Vapor density	10.6 % Not available. Not available.
Explosive limit - upper (%) Vapor pressure Vapor density Relative density	10.6 % Not available. Not available. 0.9
Explosive limit - upper (%) Vapor pressure Vapor density Relative density Relative density temperature	10.6 % Not available. Not available. 0.9
Explosive limit - upper (%) Vapor pressure Vapor density Relative density Relative density temperature Solubility(ies)	10.6 % Not available. Not available. 0.9 77 °F (25 °C)
Explosive limit - upper (%) Vapor pressure Vapor density Relative density Relative density temperature Solubility(ies) Solubility (water) Partition coefficient	10.6 % Not available. Not available. 0.9 77 °F (25 °C) Not available.
Explosive limit - upper (%) Vapor pressure Vapor density Relative density Relative density temperature Solubility(ies) Solubility (water) Partition coefficient (n-octanol/water)	10.6 % Not available. Not available. 0.9 77 °F (25 °C) Not available. Not available.
Explosive limit - upper (%) Vapor pressure Vapor density Relative density Relative density temperature Solubility(ies) Solubility (water) Partition coefficient (n-octanol/water) Auto-ignition temperature	10.6 % Not available. Not available. 0.9 77 °F (25 °C) Not available. Not available.
Explosive limit - upper (%) Vapor pressure Vapor density Relative density temperature Solubility(ies) Solubility (water) Partition coefficient (n-octanol/water) Auto-ignition temperature Decomposition temperature	10.6 % Not available. Not available. 0.9 77 °F (25 °C) Not available. Not available. Not available. Not available.
Explosive limit - upper (%) Vapor pressure Vapor density Relative density Relative density temperature Solubility(ies) Solubility (water) Partition coefficient (n-octanol/water) Auto-ignition temperature Decomposition temperature Viscosity	10.6 % Not available. Not available. 0.9 77 °F (25 °C) Not available. Not available. Not available. Not available.

10. Stability and reactivity

Reactivity
Chemical stability

The product is stable and non-reactive under normal conditions of use, storage and transport. Material is stable under normal conditions.

Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	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	May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.			
Skin contact	2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.			
Eye contact	Direct contact with eyes may cause temporary irritation.			
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.			
Symptoms related to the physical, chemical and toxicological characteristics	Headache. Nausea, vomiting. Aspiration may cause pulmonary edema and pneumonitis.			

Information on toxicological effects

Acute toxicity

May be fatal if swallowed and enters airways.

Components	Species	Calculated/Test Results		
2-BUTOXYETHANOL (CAS	111-76-2)			
Acute				
Dermal				
LD50	Rabbit	400 mg/kg		
Inhalation				
LC50	Mouse	700 ppm, 7 Hours		
	Rat	450 ppm, 4 Hours		
Oral				
LD50	Guinea pig	1.2 g/kg		
	Mouse	1.2 g/kg		
	Rabbit	0.32 g/kg		
	Rat	560 mg/kg		
mmonia, anhydrous (CAS	7664-41-7)			
Acute				
Inhalation				
LC50	Cat	0.746 mg/l, 1 Hours		
	Mouse	7.105 mg/l, 10 Minutes		
		3.36 mg/l, 1 Hours		
		3.31 mg/l, 2 Hours		
	Rabbit	7.05 mg/l, 1 Hours		
	Rat	4000 ppm, 1 Hours		
		7.6 mg/l, 2 Hours		
		5.1 mg/l, 1 Hours		
Oral				
LD50	Rat	350 mg/kg		
3UTANE (CAS 106-97-8)				
Acute				
Inhalation				
LC50	Mouse	680 mg/l, 2 Hours		
FIR No.: 187340				

Components	Species	Calculated/Test Results	
	Rat	658 mg/l, 4 Hours	
NAPHTHALENE (CAS 91-20-3)			
Acute			
Dermal			
LD50	Rabbit	> 2 g/kg	
	Rat	> 20 g/kg	
Oral			
LD50	Guinea pig	1200 mg/kg	
	Rat	490 mg/kg	
PROPANE (CAS 74-98-6)			
Acute			
Inhalation			
LC50	Rat	> 1442.847 mg/l, 15 Minutes	
Solvent naphtha (petroleum), heav	y arom. (CAS 64742-94-5)		
Acute			
Inhalation			
LC50	Rat	61 mg/l, 4 Hours	
Oral			
LD50	Rat	> 25 ml/kg	
Skin corrosion/irritation	Prolonged skin contact may ca	use temporary irritation.	
Serious eye damage/eye	Direct contact with eyes may c	ause temporary irritation.	
irritation			
Respiratory or skin sensitization	I		
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	Suspected of causing cancer.		
IARC Monographs. Overall E	Evaluation of Carcinogenicity		
2-BUTOXYETHANOL (CA NAPHTHALENE (CAS 91		3 Not classifiable as to carcinogenicity to humans. 2B Possibly carcinogenic to humans.	
	d Substances (29 CFR 1910.10		
Not listed.			
	gram (NTP) Report on Carcino	ogens	
NAPHTHALENE (CAS 91	,	Reasonably Anticipated to be a Human Carcinogen.	
Reproductive toxicity	laboratory animals.	ve been shown to cause birth defects and reproductive disorders in	
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity - repeated exposure	Not classified.		
repeated expectate			
Aspiration hazard	May be fatal if swallowed and	enters airways.	
	-	enters airways. ough skin. Prolonged inhalation may be harmful.	
Aspiration hazard	May be harmful if absorbed thr 2-Butoxy ethanol may be abso	-	
Aspiration hazard	May be harmful if absorbed thr 2-Butoxy ethanol may be abso	ough skin. Prolonged inhalation may be harmful. rbed through the skin in toxic amounts if contact is repeated and not been observed in humans.	
Aspiration hazard	May be harmful if absorbed thr 2-Butoxy ethanol may be abso prolonged. These effects have Prolonged exposure may caus	ough skin. Prolonged inhalation may be harmful. rbed through the skin in toxic amounts if contact is repeated and not been observed in humans.	

otoxicity			
Components		Species	Calculated/Test Results
2-BUTOXYETHANOL (CAS 1	11-76-2)		
Aquatic	1.050	Intend city and (Manidia handling)	1050 mg/L 00 hours
-	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
ammonia, anhydrous (CAS 76	664-41-7)		
Aquatic Fish	LC50	Chinook salmon (Oncorhynchus	0.43 - 0.47 mg/l, 96 hours
FISH	LC30	tshawytscha)	0.45 - 0.47 mg/l, 90 hours
Distillates (petroleum), hydrot	reated light (CA	S 64742-47-8)	
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.9 mg/l, 96 hours
NAPHTHALENE (CAS 91-20-	-3)		
Aquatic	,		
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	1.11 - 1.68 mg/l, 96 hours
Solvent naphtha (petroleum),	heavy arom. (C	AS 64742-94-5)	
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	2.7 - 5.1 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/l, 96 hours
		(0	8.8 mg/l, 96 hours
sistence and degradability	No data is ava	ailable on the degradability of this product.	
accumulative potential		0 , 1	
Partition coefficient n-octan	ol / water (log l	Kow)	
2-BUTOXYETHANOL		0.83	
		2.89	
NAPHTHALENE PROPANE		3.3 2.36	
bility in soil	No data availa		
er adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation		
		ocrine disruption, global warming potential	
. Disposal consideration	ns		
posal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.		
al disposal regulations	Dispose in accordance with all applicable regulations.		
zardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.		
ste from residues / unused ducts	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).		
ntaminated 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. Do not re-use empty containers.		

Turners with several stars (se)	
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ΙΑΤΑ	
<unspecified></unspecified>	
UN number	UN1950
UN proper shipping name	AEROSOLS, FLAMMABLE
Transport hazard class(es)	
Class	2.1
Subsidiary risk	2.1
-	2.1
Label(s)	
Packing group Environmental hazards	Not applicable. No.
	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Forbidden.
aircraft	
Cargo aircraft only	Forbidden.
IMDG	
<unspecified></unspecified>	
UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
	2.1
Subsidiary risk	
Subsidiary risk Label(s)	- 2.1
Subsidiary risk	-
Subsidiary risk Label(s) Packing group Environmental hazards	- 2.1 Not applicable.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant	- 2.1 Not applicable. No.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS	- 2.1 Not applicable. No. Not available.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS	- 2.1 Not applicable. No. Not available.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code DOT	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code DOT	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code DOT	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code DOT	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code DOT	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.
Subsidiary risk Label(s) Packing group Environmental hazards Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code DOT	- 2.1 Not applicable. No. Not available. Read safety instructions, SDS and emergency procedures before handling.



15. Regulatory information

for nogulatory month	ation				
US federal regulations		ct is a "Hazardou 29 CFR 1910.120		d by the OSHA Hazard	Communication
TSCA Section 12(b) Ex	port Notification	(40 CFR 707, Sι	ıbpt. D)		
Not regulated.					
CERCLA Hazardous Su	ubstance List (40	CFR 302.4)			
2-BUTOXYETHANC	•		Listed.		
ammonia, anhydrou)	Listed.		
BUTANE (CAS 106			Listed.		
NAPHTHALENE (C PROPANE (CAS 74			Listed. Listed.		
SARA 304 Emergency		on	Liotod.		
ammonia, anhydrou			100 LBS		
OSHA Specifically Reg	•	·			
Not listed.					
Superfund Amendments ar	nd Reauthorizatio	n Act of 1986 (S	SARA)		
Hazard categories	Immediate Delayed Ha Fire Hazard Pressure H	Hazard - Yes azard - Yes	,		
SARA 302 Extremely h	azardous substa	nce			
Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
ammonia, anhydrous	7664-41-7	100	500 lbs		
SARA 311/312 Hazardo chemical	ous No				
SARA 313 (TRI reportir	ng)				
Chemical name			CAS number	% by wt.	
2-BUTOXYETHANC			111-76-2	1 - < 3	
ammonia, anhydrou	IS		7664-41-7	< 1	
NAPHTHALENE			91-20-3	< 1	
Other federal regulations					
Clean Air Act (CAA) Se		ous Air Polluta	nts (HAPs) List		
NAPHTHALENE (C Clean Air Act (CAA) Se	,	dental Release	Prevention (40 CFR 6	8.130)	
ammonia, anhydrou	•)			
BUTANE (CAS 106					
PROPANE (CAS 74					
Safe Drinking Water Ac (SDWA)	ct Not regulat	ed.			
US state regulations	ad Substanses (A Doportmont	of Justice (California	Health and Safaty Cod	la Santian (1100)
US. California Controlle Not listed.	eu Substances. C	A Department	of Justice (California	Health and Salety Cou	
US. Massachusetts RT	K - Substance Lie	st			
2-BUTOXYETHANC					
ammonia, anhydrou					
BUTANE (CAS 106	-97-8)				
Distillates (petroleur		ght (CAS 64742-	47-8)		
NAPHTHALENE (C PROPANE (CAS 74					
Solvent naphtha (pe		rom. (CAS 64742	2-94-5)		
US. New Jersey Worke					
2-BUTOXYETHANC	-	•			
ammonia, anhydrou)			
BUTANE (CAS 106			47.0)		
Distillates (petroleur	in), nyurotreated lig	JHL (CAS 64742-	41-ð)		

NAPHTHALENE (CAS 91-20-3) PROPANE (CAS 74-98-6) Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

US. Pennsylvania Worker and Community Right-to-Know Law

2-BUTOXYETHANOL (CAS 111-76-2) ammonia, anhydrous (CAS 7664-41-7) BUTANE (CAS 106-97-8) Distillates (petroleum), hydrotreated light (CAS 64742-47-8) NAPHTHALENE (CAS 91-20-3) PROPANE (CAS 74-98-6)

US. Rhode Island RTK

2-BUTOXYETHANOL (CAS 111-76-2) ammonia, anhydrous (CAS 7664-41-7) BUTANE (CAS 106-97-8) NAPHTHALENE (CAS 91-20-3) PROPANE (CAS 74-98-6)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

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 Version # HMIS® ratings NFPA ratings	08-13-2015 01 Health: 2 Flammability: 2 Physical hazard: 0 Health: 2
Preparation Information and Disclaimer	Flammability: - Instability: 0 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. This document was prepared by FCSD-Toxicology, Ford Motor Company, Diagnostic Service Center II, 1800 Fairlane 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.
Part number(s)	ZC-20