

## 1. Identification

<b>Product identifier</b>	<b>Professional Strength Carpet &amp; Upholstery Cleaner</b>	
<b>Other means of identification</b>		
<b>FIR No.</b>	171146	
<b>Recommended use</b>	Carpet and upholstery cleaner	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company Name</b>	Ford Motor Company	
<b>Address</b>	Attention: SDS Information, P.O. Box 1899 Dearborn, Michigan 48121 USA	
<b>Telephone</b>	1-800-392-3673	
<b>SDS Information</b>	1-800-448-2063 (USA and Canada) fordsds.com	
<b>Emergency telephone numbers</b>	Poison Control Center: USA and Canada: 1-800-959-3673 INFOTRAC (Transportation): USA and Canada 1-800-535-5053	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Gases under pressure	Compressed gas
<b>Health hazards</b>	Not classified.	
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Warning
<b>Hazard statement</b>	Contains gas under pressure; may explode if heated.
<b>Precautionary statement</b>	
<b>Prevention</b>	Not available.
<b>Response</b>	Not available.
<b>Storage</b>	Protect from sunlight. Store in a well-ventilated place.
<b>Disposal</b>	Not available.
<b>Hazard(s) not otherwise classified (HNOC)</b>	May irritate eyes and skin.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
PROPANE		74-98-6	16.25
ISOBUTANE		75-28-5	8.75
MORPHOLINE		110-91-8	0.41
2-(propyloxy)ethanol		2807-30-9	0.3 - 0.4

Chemical name	Common name and synonyms	CAS number	%
PROPAN-2-OL		67-63-0	0.12
2-AMINOETHANOL		141-43-5	0.05
Sodium glycollate		2836-32-0	0.02
2,2'-IMINODIETHANOL		111-42-2	< 0.1
SODIUM HYDROXIDE		1310-73-2	< 0.1
SULPHURIC ACID		7664-93-9	< 0.1

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

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Rinse skin with water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. In the unlikely event of swallowing contact a physician or poison control center.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. 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.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid contact with eyes, skin, and clothing. Avoid breathing mist/vapors. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep unnecessary personnel away. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Emergency personnel need self-contained breathing equipment. 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.
<b>Methods and materials for containment and cleaning up</b>	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers. 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. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapor. Avoid prolonged exposure. Use only in well-ventilated areas. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not re-use empty containers. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. For personal protection, see Section 8 of the SDS.

### Conditions for safe storage, including any incompatibilities

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. 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 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-AMINOETHANOL (CAS 141-43-5)	PEL	6 mg/m3
		3 ppm
MORPHOLINE (CAS 110-91-8)	PEL	70 mg/m3
		20 ppm
PROPAN-2-OL (CAS 67-63-0)	PEL	980 mg/m3
		400 ppm
PROPANE (CAS 74-98-6)	PEL	1800 mg/m3
		1000 ppm
SODIUM HYDROXIDE (CAS 1310-73-2)	PEL	2 mg/m3
SULPHURIC ACID (CAS 7664-93-9)	PEL	1 mg/m3

#### US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
2,2'-IMINODIETHANOL (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
2-AMINOETHANOL (CAS 141-43-5)	STEL	6 ppm	
	TWA	3 ppm	
ISOBUTANE (CAS 75-28-5)	STEL	1000 ppm	
MORPHOLINE (CAS 110-91-8)	TWA	20 ppm	
PROPAN-2-OL (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3	
SULPHURIC ACID (CAS 7664-93-9)	TWA	0.2 mg/m3	Thoracic fraction.

#### NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
2-AMINOETHANOL (CAS 141-43-5)	IDLH	3 %
		30 ppm

**NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended**

Components	Type	Value
MORPHOLINE (CAS 110-91-8)	IDLH	1.4 % 1400 ppm
PROPAN-2-OL (CAS 67-63-0)	IDLH	2 % 2000 ppm
PROPANE (CAS 74-98-6)	IDLH	2.1 % 2100 ppm
SODIUM HYDROXIDE (CAS 1310-73-2)	IDLH	10 mg/m3
SULPHURIC ACID (CAS 7664-93-9)	IDLH	15 mg/m3

**US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)**

Components	Type	Value
2,2'-IMINODIETHANOL (CAS 111-42-2)	TWA	15 mg/m3 3 ppm
2-AMINOETHANOL (CAS 141-43-5)	STEL	15 mg/m3 6 ppm
	TWA	8 mg/m3 3 ppm
ISOBUTANE (CAS 75-28-5)	TWA	1900 mg/m3 800 ppm
MORPHOLINE (CAS 110-91-8)	STEL	105 mg/m3 30 ppm
	TWA	70 mg/m3 20 ppm
PROPAN-2-OL (CAS 67-63-0)	STEL	1225 mg/m3 500 ppm
	TWA	980 mg/m3 400 ppm
PROPANE (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3
SULPHURIC ACID (CAS 7664-93-9)	TWA	1 mg/m3

**Biological limit values****ACGIH Biological Exposure Indices (BEI)**

Components	Value	Determinant	Specimen	Sampling Time
PROPAN-2-OL (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

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

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

2,2'-IMINODIETHANOL (CAS 111-42-2)	Can be absorbed through the skin.
MORPHOLINE (CAS 110-91-8)	Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

MORPHOLINE (CAS 110-91-8)

Skin designation applies.

**US - Tennessee OELs: Skin designation**

MORPHOLINE (CAS 110-91-8)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

2,2'-IMINODIETHANOL (CAS 111-42-2)

Danger of cutaneous absorption

MORPHOLINE (CAS 110-91-8)

Danger of cutaneous absorption

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

MORPHOLINE (CAS 110-91-8)

Can be absorbed through the skin.

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

MORPHOLINE (CAS 110-91-8)

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. Use protective gloves made of: Polyvinyl chloride (PVC).

**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**

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**

Not available.

**Odor**

Not available.

**Odor threshold**

Not available.

**pH**

10.3

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

Not available.

**Flash point**

200.0 °F (93.3 °C)

**Evaporation rate**

Not available.

**Flammability (solid, gas)**

Not applicable.

**Upper/lower flammability or explosive limits****Explosive limit - lower (%)**

Not available.

**Explosive limit - upper (%)**

Not available.

**Vapor pressure**

Not available.

**Vapor density**

Not available.

**Relative density**

1.01 (Water=1)

**Solubility(ies)****Solubility (water)**

Not available.

<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	0.99 cSt

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Chlorine. Fluorine. Nitrates.
<b>Hazardous decomposition products</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Based on available data, the classification criteria are not met. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Based on available data, the classification criteria are not met. Prolonged skin contact may cause temporary irritation.
<b>Eye contact</b>	Based on available data, the classification criteria are not met. Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Based on available data, the classification criteria are not met. May be harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

#### Acute toxicity

Components	Species	Calculated/Test Results
2,2'-IMINODIETHANOL (CAS 111-42-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	11.9 ml/kg
<b>Oral</b>		
LD50	Rat	710 mg/kg 1.82 g/kg
<b>Other</b>		
LD50	Mouse	3553 mg/kg 2300 mg/kg
2-AMINOETHANOL (CAS 141-43-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1025 mg/kg
<b>Oral</b>		
LD50	Guinea pig	620 mg/kg
	Mouse	700 mg/kg
	Rat	10.2 g/kg
<b>Other</b>		
LD50	Mouse	50 mg/kg
	Rat	1750 mg/kg

Components	Species	Calculated/Test Results
		225 mg/kg
		67 mg/kg
ISOBUTANE (CAS 75-28-5)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	Mouse	52 mg/l, 1 Hours
	Rat	570000 ppm, 15 Minutes
MORPHOLINE (CAS 110-91-8)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	0.5 ml/kg
<b>Oral</b>		
LD50	Guinea pig	0.09 g/kg
	Mouse	720 mg/kg
	Rat	1.05 g/kg
PROPAN-2-OL (CAS 67-63-0)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	12800 mg/kg
<b>Oral</b>		
LD50	Dog	4797 mg/kg
	Mouse	3600 mg/kg
	Rabbit	4.5 g/kg
		6410 mg/kg
		8 g/kg
		5.03 g/kg
	Rat	5045 mg/kg
		4.7 g/kg
<b>Other</b>		
LD50	Mouse	4477 mg/kg
		1509 mg/kg
	Rat	2735 mg/kg
		1099 mg/kg
PROPANE (CAS 74-98-6)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	Rat	> 1464 mg/l, 15 Minutes
		> 1443 mg/l, 15 Minutes
SULPHURIC ACID (CAS 7664-93-9)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	Guinea pig	0.03 mg/l, 8 Hours
		0.018 mg/l, 8 Hours
	Rat	347 mg/l, 1 Hours
<b>Oral</b>		
LD50	Rat	2140 mg/kg
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Serious eye damage/eye irritation</b>	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** Not classifiable as to carcinogenicity to humans.

### IARC Monographs. Overall Evaluation of Carcinogenicity

2,2'-IMINODIETHANOL (CAS 111-42-2) 2B Possibly carcinogenic to humans.

SULPHURIC ACID (CAS 7664-93-9) 1 Carcinogenic to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### US. National Toxicology Program (NTP) Report on Carcinogens

SULPHURIC ACID (CAS 7664-93-9) Known To Be Human Carcinogen.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** 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.

**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)

2,2'-IMINODIETHANOL	1.43
2-AMINOETHANOL	-1.31
ISOBUTANE	2.76
MORPHOLINE	-0.86
PROPAN-2-OL	0.05
PROPANE	2.36
SULPHURIC ACID	-2.2

**Mobility in soil** No data available.

**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** Contents under pressure. Do not puncture, incinerate or crush. Dispose of this material and its container to hazardous or special waste collection point. 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. Do not re-use empty containers.

## 14. Transport information

### DOT

**UN number** UN1950



**UN proper shipping name** Aerosols  
**Transport hazard class(es)**  
**Class** 2.2  
**Subsidiary risk** -  
**Packing group** -  
**Environmental hazards**  
**Marine pollutant** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IATA

**UN number** UN1950  
**UN proper shipping name** Aerosols  
**Transport hazard class(es)**  
**Class** 2.2  
**Subsidiary risk** -  
**Packing group** -  
**Environmental hazards** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

**UN number** UN1950  
**UN proper shipping name** Aerosols  
**Transport hazard class(es)**  
**Class** 2.2  
**Subsidiary risk** -  
**Packing group** -  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** Not assigned.  
**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.

## Toxic Substances Control Act (TSCA)

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

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

ISOBUTANE (CAS 75-28-5) Listed.

PROPANE (CAS 74-98-6) Listed.

### SARA 304 Emergency release notification

Sulfuric acid (aerosol forms only) (CAS 7664-93-9) 1000 LBS

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

### SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
SULPHURIC ACID	7664-93-9	1000	1000		

### SARA 311/312 Hazardous chemical

Yes

**Classified hazard categories** Gas under pressure

### SARA 313 (TRI reporting)

Not regulated.

## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2-(propyloxy)ethanol (CAS 2807-30-9)

2,2'-IMINODIETHANOL (CAS 111-42-2)

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

ISOBUTANE (CAS 75-28-5)

PROPANE (CAS 74-98-6)

SULPHURIC ACID (CAS 7664-93-9)

### Safe Drinking Water Act (SDWA)

Not regulated.

## US state regulations

### California Proposition 65



**WARNING:** This product can expose you to chemicals including 2,2'-IMINODIETHANOL, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### California Proposition 65 - CRT: Listed date/Carcinogenic substance

2,2'-IMINODIETHANOL (CAS 111-42-2)

Listed: June 22, 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	04-04-2024
Version	01
HMIS® ratings	Health: 1 Flammability: 2 Physical hazard: 0
NFPA ratings	Health: 1 Flammability: - Instability: 0

**Preparation Information and  
Disclaimer**

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-54