

Material Safety Data Sheet

FIR No.: 172983
Version Number: US-US-7

Level: 2
Release Date: 2013-04-22

1. Product and Company Identification

Product Name: Engine Shampoo and Degreaser
Product Code: See Attachment
Supplier: Ford Motor Company
 Attention: MSDS Information, P.O. Box 1899
 Dearborn, Michigan 48121
 1-800-392-3673

Emergency Telephone: Poison Control Center: 1-800-959-3673
 CHEMTREC: U.S. and Canada: 1-800-424-9300
 CHEMTREC: International: 1-703-527-3887

2. Composition/Information on Ingredients

This chemical product is a preparation.

| Chemical Name | CAS Number | Percent Concentration | Hazard Classification |
|-------------------------------------|------------|-----------------------|--|
| NAPHTHA (PETROLEUM), HEAVY AROMATIC | 64742-94-5 | 20-30 | HAZCOM |
| PROPANE | 74-98-6 | 1-5 | HAZCOM |
| NAPHTHALENE | 91-20-3 | 1-5 | CAA-HAP HAZCOM RQ RSMS_D_ALL SARA 313 WHMIS 1 |
| N-BUTANE | 106-97-8 | 1-5 | HAZCOM WHMIS 1 RSMS_D_ALL |
| ETHYLENE GLYCOL MONOBUTYL ETHER | 111-76-2 | 1-5 | HAZCOM MOC-ALL SARA 313 WHMIS 1 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 | 0.1-1 | RSMS_D_ALL WHMIS 0.1 |
| AMMONIUM HYDROXIDE | 1336-21-6 | 0.1-1 | RQ RSMS_D_ALL |



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3. Hazards Identification

Flammable aerosol.

Health: May cause skin, eye and respiratory tract irritation. Inhalation of mist and vapors may irritate the nose, throat, and lungs. Overexposure may cause central nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

Physical and Chemical Hazards: Contents under pressure. Container may explode if heated.

Environment: Material contains a chemical which is a Hazardous Air Pollutant (HAP), regulated by the United States Clean Air Act.

4. First-Aid Measures

Inhalation: If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If irritation persists, get medical attention.

Skin Contact: Wash skin with soap and water. If irritation persists, get medical attention.

Eye Contact: In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical attention.

Ingestion: If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

Most Important Symptoms Effects: Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

5. Fire-Fighting Measures

Extinguishing Media: Dry chemical, foam, carbon dioxide.

Specific Methods: Water may be an ineffective extinguishing medium. Water may be used to cool exposed containers to prevent pressure build-up and explosion when exposed to extreme heat.

Specific Hazards: Due to pressure buildup, closed containers exposed to excess heat may explode. Vapors may form explosive mixture with air.

Protection of Firefighters: Fire fighters should be equipped with NIOSH-approved, self-contained breathing apparatus (SCBA) and full protective clothing.



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6. Accidental Release Measures

Personal Precautions: Avoid inhalation of vapors and contact with skin and eyes.
 Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.
 Ventilate the contaminated area.

Environmental Precautions: No available information.

Methods for Cleaning Up: Absorb the spilled material with an inert absorbent (nonflammable) material.

7. Handling and Storage

Handling:

Technical Measures: Keep this product from heat, sparks, or open flame.

Precautions and Advice for Safe Handling: Avoid breathing vapor or mist.
 Avoid skin and eye contact.
 Do not puncture or incinerate container.
 Use with adequate ventilation.

Storage: Technical Measures: No special precautions.

Storage Conditions: Avoid prolonged exposure of the container to direct sunlight.
 Do not expose to heat or store at temperatures above 120F.
 Ground all containers of this material.
 Keep this material in a cool place.

8. Exposure Controls/Personal Protection

Engineering Measures: Use local exhaust.

Exposure Limits:

| Chemical Name | TWA | STEL/C | References |
|---------------------------------|-----------|-----------|------------|
| PROPANE | 2500(ppm) | | ACGIH |
| NAPHTHALENE | 1000(ppm) | 1800(ppm) | OSHA |
| | 10(ppm) | 15(ppm) | ACGIH |
| N-BUTANE | 10(ppm) | 50(ppm) | OSHA |
| | 800(ppm) | | ACGIH |
| ETHYLENE GLYCOL MONOBUTYL ETHER | 20(ppm) | | OSHA |
| | 50(ppm) | 240(ppm) | ACGIH |
| | | | OSHA |



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Personal Protective Equipment:

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.

Hand Protection: Protective gloves are not normally required.

Eye Protection: Wear safety glasses with side shields.

Skin and Body Protection: Remove contaminated clothing and wash before reuse.

Hygiene Measures: Wash thoroughly after handling.

9. Physical and Chemical Properties

Specific Gravity: 0.91

Physical State: AEROSOL

Odor: N.AV

Color: N.AV

pH: 7.0 100% V/V ASTM D1293

Temperature Range During which Changes in Physical State Occur:

Boiling Point: -17.7-218.3 °C (0-425F)

Melting Point: N.AV

Flash Point: -28.88889 °C PMCC

Explosion Properties:

UEL: 10.6 %

LEL: 0.8 %

Vapor Density: >1 (AIR=1)

Solubility: N.AP

Viscosity: N.AP

Evaporation Rate: >1 Ether = 1



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10. Stability and Reactivity

Stability: This is a stable material.
Hazardous polymerization will not occur.

Conditions and Materials to Avoid: No statement is applicable to this section

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

11. Toxicological Information

106-97-8 N-BUTANE
Inhalation, adult rat, LC50 = 658 gm/m3 (4 Hours)
111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER
Inhalation, adult rat, LC50 = 450 ppm (4 Hours)
91-20-3 NAPHTHALENE
Oral, adult rat, LD50 = 1250 mg/kg
111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER
Oral, adult rat, LD50 = 530 mg/kg
111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER
Skin, adult guinea pig, LD50 = 230 mg/kg

Inhalation: Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Skin Contact: Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

Chronic (Long Term) Toxicity: Long-term overexposure may cause blood, liver and kidney effects. Prolonged or repeated occupational overexposure to solvents has been linked to permanent brain and nervous system damage.

12. Ecological Information

No specific aquatic data available for this product.

13. Disposal Considerations

Waste from Residues: Do not puncture or incinerate containers. Large number of aerosol containers may require handling as a hazardous waste. Consult local, state, federal, or provincial agency for proper disposal method in your area.

Contaminated Packaging: Do not crush, puncture or incinerate spent containers. Large numbers or aerosol containers may require handling as a hazardous waste. Consult local, provincial, and federal agencies for the proper disposal method in your area.



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14. Transport Information

U.S. Department of Transportation (DOT) 49 - CFR 172.101

Proper Shipping Name: Aerosols
UN Number: UN1950
Hazard Class / Division: 2.1

Reportable Quantity (per packaging):

Table with 3 columns: CAS, RQ, Name. Rows include 108-88-3 (TOLUENE), 1336-21-6 (AMMONIUM HYDROXIDE), and 91-20-3 (NAPHTHALENE).

Regulated Quantity:

Table with 3 columns: Bulk, Non-Bulk, Limited Quantity. Row 1: X, X, Limited Quantity.

Label: FLAMMABLE GAS

Canadian Transportation of Dangerous Goods (T.D.G.) - TDGR Schedule II

Proper Shipping Name: AEROSOLS
UN Number: UN1950
Hazard Class / Division: 2.1

Packing Group:

Regulated Quantity:

Table with 3 columns: Bulk, Non-Bulk, Limited Quantity. Row 1: X, X, Limited Quantity.

Label: FLAMMABLE GAS



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Secretary of Communication and Transportation (SCT) - NOM-002-SCT2/1994 (Mexico)

Proper Shipping Name: AEROSOLES
UN Number: UN1950
Hazard Class/Division: 2.1
Regulated Quantity: Bulk X Non-Bulk X Limited Quantity
Label: FLAMMABLE GAS

International and Domestic Air Transportation - ICAO & IATA Section 4.2

Proper Shipping Name: AEROSOLS, FLAMMABLE
UN Number: UN1950
Hazard Class/Division: 2.1
Label: FLAMMABLE GAS

International Water Transportation - IMDG Code Amendment 31-02

Proper Shipping Name: AEROSOLS
UN Number: UN1950
Hazard Class/Division: 2.1
Ems Number: 2-13
Regulated Quantity: Bulk X Non-Bulk X Limited Quantity
Label: FLAMMABLE GAS

15. Regulatory Information

WARNING: This product and the product being replaced may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
The components of this product are listed on the TSCA Inventory
Material contains a chemical which is a Ford Motor Company Material of Concern. Use and release of this material should be minimized to the greatest extent possible.



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16. Other Information

Key/Legend: N.AP = Not applicable; N.AV = Not available; ND = Not determined or No data; TLV = Threshold limit value; TWA = Time-weighted average; STEL = Short-term exposure limit; C = Ceiling limit

Preparation Information:

The chemical identification and properties for this material were provided by the manufacturer. Health and safety information has been evaluated by the Occupational and Environmental Health Sciences Department, Ford Motor Company, Diagnostic Service Center II, 1800 Fairlane Drive, Allen Park, MI 48101, USA.

Disclaimer:

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.



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Attachment

| Product Code | Container Size | Part of Kit | Kit Product Code |
|---------------------|-----------------------|--------------------|-------------------------|
| ZC-20 | 15 oz. | | |
| ZC-20 (Obsolete) | 17.25 oz. | | |