SAFETY DATA SHEET



1. Identification

| Product identifier | 6R ATF Additive F |
|---------------------------------|---|
| Other means of identification | |
| FIR No. | 183360 |
| Recommended use | Additive for use in transmission oil |
| Recommended restrictions | None known. |
| Manufacturer/Importer/Supplier/ | Distributor information |
| Supplier | |
| Company Name | Ford Motor Company |
| Address | Attention: MSDS Information, P.O. Box 1899 |
| | Dearborn, Michigan 48121 |
| | USA |
| Telephone | 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 | Not classified. | |
|-----------------------|-----------------------------------|-------------|
| Health hazards | Skin corrosion/irritation | Category 1C |
| | Serious eye damage/eye irritation | Category 1 |
| | Aspiration hazard | Category 1 |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| | | |

Label elements



| Signal word | Danger |
|--|---|
| Hazard statement | May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. Causes serious eye damage. |
| Precautionary statement | |
| Prevention | Do not breathe mist or vapor. Wash thoroughly after handling. 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. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. |
| Storage | Store locked up. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | Irritating to respiratory system. Aspiration may cause pulmonary edema and pneumonitis. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|---|--------------------------|--------------|----------|
| Mineral oil | | Trade Secret | 60 - 100 |
| Long-chain alkenyl imidazoline alkanol | | Trade Secret | 10 - 20 |

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

4. 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. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. 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. Call a physician or poison control center immediately. |
| 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 | Burning pain and severe corrosive skin damage. Aspiration may cause pulmonary edema and pneumonitis. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Chemical 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. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

| Suitable extinguishing media Unsuitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Do not use water jet as an extinguisher, as this will spread the fire. |
|---|---|
| Specific hazards arising from the chemical | 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 | 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 | No unusual fire or explosion hazards noted. |

6. Accidental release measures

| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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. Ensure adequate ventilation. 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 | 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. Cover with plastic sheet to prevent spreading. 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. |
| Environmental precautions | 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. |

7. Handling and storage Precautions for safe handling

Keep away from heat, sparks and open flame. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

| Components | ts for Air Contaminants (29 CFR 1910.100 Type | Value | Form |
|--|--|-----------------------------|--------------------------------|
| Mineral oil | PEL | 5 mg/m3 | Mist. |
| US. NIOSH: Pocket Guide | to Chemical Hazards | | |
| Components | Туре | Value | Form |
| Mineral oil | STEL | 10 mg/m3 | Mist. |
| | TWA | 5 mg/m3 | Mist. |
| iological limit values | No biological exposure limits noted for | the ingredient(s). | |
| ppropriate engineering ontrols | Use adequate ventilation to control airl user operations generate a vapor, dust ventilation, or other engineering contro exposure limits/guidelines. | and/or mist, use process er | nclosure, local exhaust |
| dividual protection measure Eye/face protection | es, such as personal protective equipme Wear safety glasses with side shields (side shields (or goggles). | | d. Wear safety glasses with |
| Skin protection | | | |
| Hand protection | Suitable chemical protective gloves she repeated skin exposure. The choice of but also on other quality features and is recommended. | an appropriate glove does r | ot only depend on its material |
| Other | Wear appropriate chemical resistant 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 cl | othing, when necessary. | |
| eneral hygiene onsiderations | Always observe good personal hygiene and before eating, drinking, and/or smo equipment to remove contaminants. | | |

9. Physical and chemical properties

| Appearance | |
|-----------------------------------|-------------------------------|
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Amber. |
| Odor | Ammoniacal. |
| Odor threshold | Not available. |
| рН | 11 |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling | Not available. |
| range | |
| Flash point | 370.4 °F (188.0 °C) ASTM D 93 |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not applicable. |

Upper/lower flammability or explosive limits

| Upper/lower flammability or expl | osive limits |
|--|---------------------|
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Relative density | 0.843 |
| Relative density temperature | 39.2 °F (4 °C) |
| Solubility(ies) | |
| Solubility (water) | NEGLIGIBLE IN WATER |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Kinematic viscosity | 13.67 cSt ASTM D97 |
| Kinematic viscosity temperature | 104 °F (40 °C) |

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 | Contact with incompatible materials. |
| Incompatible materials | Strong reducing agents. |
| Hazardous decomposition products | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Nitrogen oxides (NOx). |

11. Toxicological information

Information on likely routes of exposure

| FIR No.: 183360 | | SDS US |
|--|--|----------|
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Skin sensitization | This product is not expected to cause skin sensitization. | |
| Respiratory sensitization | Not a respiratory sensitizer. | |
| Respiratory or skin sensitizatio | n | |
| Serious eye damage/eye irritation | Causes serious eye damage. | |
| Skin corrosion/irritation | Causes severe skin burns and eye damage. | |
| Acute toxicity | May be fatal if swallowed and enters airways. | |
| Information on toxicological eff | rects | |
| Symptoms related to the physical, chemical and toxicological characteristics | Burning pain and severe corrosive skin damage. Aspiration may cause pulmonary edema a pneumonitis. Causes serious eye damage. Symptoms may include stinging, tearing, redne swelling, and blurred vision. Permanent eye damage including blindness could result. | |
| Ingestion | Causes digestive tract burns. Droplets of the product aspirated into the lungs through inges vomiting may cause a serious chemical pneumonia. | stion or |
| Eye contact | Causes serious eye damage. | |
| Skin contact | Causes severe skin burns. | |
| Inhalation | May cause irritation to the respiratory system. Prolonged inhalation may be harmful. | |

| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. | | |
|--|---|--|--|
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) | | | |
| Not listed. | | | |
| 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 | May be fatal if swallowed and enters airways. | | |
| 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 this product. |
|-------------------------------|---|
| Bioaccumulative potential | No data available. |
| 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 | 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. |
|--|--|
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | 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 | 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. |

14. Transport information

| DOT | |
|------------------------------|--|
| <unspecified></unspecified> | |
| UN number | UN2735 |
| UN proper shipping name | Amines, liquid, corrosive, n.o.s. (Long-chain alkenyl imidazoline alkanol) |
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Label(s) | 8 |
| Packing group | |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| ΙΑΤΑ | |
| <unspecified></unspecified> | |
| UN number | UN2735 |
| UN proper shipping name | Amines, liquid, corrosive, n.o.s. (Long-chain alkenyl imidazoline alkanol) |
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Label(s) | 8 |
| Packing group | |
| Environmental hazards | No. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Other information | |
| Passenger and cargo | Forbidden. |
| aircraft | |
| FIR No.: 183360 | |
| Version: 01 | |

| Cargo aircraft only | Forbidden. |
|--|--|
| IMDG | |
| <unspecified></unspecified> | |
| UN number | UN2735 |
| UN proper shipping name | Amines, liquid, corrosive, n.o.s. (Long-chain alkenyl imidazoline alkanol) |
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Label(s) | 8 |
| Packing group | |
| 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





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)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Not regulated.

- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
 - Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

US state regulations

- US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.
- US. Massachusetts RTK Substance List

Mineral oil (CAS Trade Secret)

- US. New Jersey Worker and Community Right-to-Know Act Not listed.
- US. Pennsylvania Worker and Community Right-to-Know Law
 - Mineral oil (CAS Trade Secret)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

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 | 05-20-2015 01 Health: 3 Flammability: 1 Physical hazard: 0 |
|---|---|
| NFPA ratings | Health: 3 Flammability: 1 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) | AU2J-19C548-BA, XL-16 |