

MATERIAL SAFETY DATA SHEET

Trade Name: Castrol A/C Flush (Solvent Based)
MSDS NO. 8545
Revision Date: 04/01/2002

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Castrol A/C Flush (Solvent Based)
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300
Supplier:
Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient/CAS No.	wt. %	OSHA PEL TWA	OSHA PEL Ceiling Limits	ACGIH TLV TWA	ACGIH TLV STEL
Methyl Hexanes None	30-45	None Established	None Established	None Established	None Established
Isopropyl Alcohol 67-63-0	20-30	400 ppm	Not Known	400 ppm	500 ppm
Heptane 142-82-5	15-25	500 ppm: 2000 mg/m3	None Established	400 ppm: 1640 mg/m3	500 ppm
Dimethyl Pentanes None	5-10	None Established	None Established	None Established	None Established
Dimethyl Cyclopentanes None	0-5	None Established	None Established	None Established	None Established
Toluene 108-88-3	1.5-4	100 ppm	150 ppm	100 ppm	150 ppm

3. HAZARDS IDENTIFICATION

Emergency Overview: Danger: Extremely flammable. May be fatal if swallowed. Harmful or fatal if liquid is aspirated into lungs. Causes severe eye irritation. May cause severe skin irritation. This material is readily absorbed through the skin in liquid or vapor phase. Gross inhalation overexposure may cause: Central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness or death.

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Ingestion: DO NOT INDUCE VOMITING. Give nothing by mouth. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Wash with soap and water for 15 minutes. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point °F(°C): 15 F (lowest Component)
Flash Point Method: TAG Closed Cup
Flammable Limits in Air - Lower (%): 1.2% (lowest Component)
Flammable Limits in Air - Upper (%): 6.7% (lowest Component)
Autoignition Temperature °F(°C): Not Determined
Extinguishing Media: Carbon dioxide. Dry chemical. Foam. Use water spray to keep containers cool that are exposed to heat or flames.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Vapor may cause flash fire. Closed containers may explode if exposed to extreme heat. Water fog or spray may be used to cool exposed equipment and containers. Do not spray water directly on fire - product will float and could be reignited on surface of water.

Hazardous Combustion Products:

Aerosol Comments: Oxides of Carbon. Mixed hydrocarbons. Fumes and Smoke.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact.

Trade Name: Castrol A/C Flush (Solvent Based) **MSDS NO. 6545**

Spill Procedures: Wear protective equipment specified. Avoid all sources of ignition; heat, sparks and open flames. Persons not trained should evacuate area. Remove sources of ignition. Increase area ventilation. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal.

Environmental Precautions: Do not allow to enter sanitary drains, sewer or surface and subsurface waters.

7. HANDLING AND STORAGE

Handling and Storage: Warning: Flammable. Use only in a well ventilated area. Avoid breathing vapors, If exposed to high vapor concentration, leave area at once. Keep container closed when not in use. Keep away from food and smoking materials. Wash hands before eating and smoking. Keep away from heat and open flame. Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material. Bond and ground during transfer.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Exhaust ventilation. Showers. Eyewash stations.
Eyes: Chemical goggles; also wear a face shield if splashing hazard exists. Do NOT wear contact lenses.
Skin Protection: Avoid skin contact. Wear protective clothing and gloves. Use gloves resistant to the material being used (Viton, Nitrile). Launder contaminated clothing before reuse.
Respiratory Protection: Use local exhaust to capture vapor, mists or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup explosive concentrations of vapor in air. No smoking, or use of flame or other ignition sources. Use approved NIOSH respiratory protection if TLV exceeded..... Or over exposure is likely.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless to light yellow liquid	pH Value:	Not Determined
Odor:	Solvent/Lemon	Vapor Density (Air=1):	Not Determined
Vapor Pressure:	Not Determined	Melting/Freezing Point:	Not determined.
Boiling Point (°F):	180 F (lowest Component)	Bulk Density at 20°C:	6.00 lb/gal
Solubility in Water:	approx. 25%	Evaporation Rate:	Not Determined
Molecular Weight:	Mixture	Specific Gravity (H2O=1):	.92 @ 60 F
Viscosity:	.83 cSt @ 100 F	Decomposition Temperature:	Not Known
VOC Content(%):	Not Determined.		

10. STABILITY AND REACTIVITY

Chemical Stability: STABLE.
Conditions to Avoid: Avoid any source of ignition. High temperatures. Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen.
Materials to Avoid: Aluminum metals, NITROFORM. Strong oxidizing agents. Sulfuric Acid. Concentrated oxygen.
Hazardous Decomposition Products: Oxides of carbon. Mixed Hydrocarbons. Smoke and Fumes.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Ingredient/CAS No.	wt. %	Route	Species	Dose
Methyl Hexanes None	30-45	NA	NA	Not known.
Isopropyl Alcohol 67-83-0	20-30	Inhalation	Rats	LC50 16,000 ppm
Heptane 142-82-5	15-25	Inhalation	Rats	LC50 103 gm/m3/4H
Dimethyl Pentanes None	5-10	NA	NA	Not known.
Dimethyl Cyclopentanes None	0-5	NA	NA	Not known.
Toluene 108-88-3	1.5-4	Inhalation	Rats	LC50 49 gm/m3/4H

Carcinogenicity:

Ingredient/CAS No.	wt. %	IARC	NTP	OSHA
Methyl Hexanes None	30-45	Not Listed	Not Listed	Not Listed

Trade Name: Castrol A/C Flush (Solvent Based) **MSDS NO.** 6545

Isopropyl Alcohol 67-83-0	20-30	Not Listed	Not Listed	Not Listed
Heptane 142-82-5	15-25	Not Listed	Not Listed	Not Listed
Dimethyl Pentanes None	5-10	Not Listed	Not Listed	Not Listed
Dimethyl Cyclopentanes None	0-5	Not Listed	Not Listed	Not Listed
Toluene 108-88-3	1.5-4	Group 3 (not classifiable)	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: Not determined.

Waste Management: Not determined.

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: Flammable Liquid, n.o.s. (Heptane, Isopropyl Alcohol)
Hazard Class: 3
UN/NA Number: UN1993
DOT Packing Group: PG II

IMDG:

Proper Shipping Name: Flammable Liquid, n.o.s., (Heptane, Isopropyl Alcohol)
Hazard Class: 3.2
Hazard Subclass: Not determined.
UN No.: UN 1993
Packing Group: PG II
Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Ingredient/CAS No.	wt. %	SARA 313	SARA 302	RQ	TPQ
Methyl Hexanes None	30-45	Not Known	Not Known	NA	NA
Isopropyl Alcohol 67-83-0	20-30	Listed	Not Listed	NA	NA
Heptane 142-82-5	15-25	Not Listed	Not Listed	NA	NA
Dimethyl Pentanes None	5-10	Not Known	Not Known	NA	NA
Dimethyl Cyclopentanes None	0-5	Not Known	Not Known	NA	NA
Toluene 108-88-3	1.5-4	Listed	Not Listed	1000 lbs.	NA

SARA 311/312 Hazard Categories: Not Determined.

State Regulations:

Trade Name: Castrol A/C Flush (Solvent Based) MSDS NO. 6545

Ingredient/CAS No.	wt. %	California Prop. 65 Cancer list	California Prop. 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
Methyl Hexanes None	30-45	Not Listed	Not Listed	Not Listed	Not Listed
Isopropyl Alcohol 67-63-0	20-30	Not Listed	Not Listed	Not Listed	Not Listed
Heptane 142-82-5	15-25	Not Listed	Not Listed	Not Listed	Not Listed
Dimethyl Pentanes None	5-10	Not Listed	Not Listed	Not Listed	Not Listed
Dimethyl Cyclopentanes None	0-5	Not Listed	Not Listed	Not Listed	Not Listed
Toluene 108-88-3	1.5-4	Not Listed	Listed, Developmental toxicity:initial date 1/1/91	Not Listed	Not Listed

U.S. TSCA:

The components of this product are listed on the TSCA Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.

Disclaimer:

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