

MANUFACTURER

Castle Products, Inc.
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 EMERGENCY (585) 275-3232

MATERIAL SAFETY DATA SHEET

Hazard: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
 Protection: A-Goggles, B-Goggles & gloves,
 C- Goggles, gloves, & protective wear.
 Other: NA-Not Applicable, ND-Not Determined,
 NE-Not Established.

HAZARD RATING

Health 2
 Fire 4
 Reactivity 0
 Protection B

SECTION I DESCRIPTION

TRADE NAME: **Castle® Fire One™**

PRODUCT TYPE: Starting Fluid

SECTION II HAZARDOUS INGREDIENTS

INGREDIENT	CAS #	PEL	TLV	STEL	%
Diethyl Ether	60-29-7	400 ppm	400 ppm	NE	60 %
Heptane	142-82-5	400 ppm	400 ppm	NE	35-40 %
Carbon Dioxide	124-38-9	5000 ppm	NE	NE	< 10 %
Upper Cylinder Lubricant	64741-89-5	NE	NE	NE	< 1 %

SECTION III PHYSICAL DATA

BOILING POINT (O°F) MP:	95°F – 200°F	SPECIFIC GRAVITY (H2O = 1)	0.7
VAPOR PRESSURE (mmHg):	537.0	PERCENT VOLATILE BY VOL %	100 %
VAPOR DENSITY (AIR = 1):	>1	EVAPORATION RATE (Butyl Acetate):	>1
SOLUBILITY IN WATER:	Slight	APPEARANCE & ODOR:	Clear liquid / Ether Odor

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (method used): -49°F (TCC) LOWER EXPLOSIVE LIMIT: 1.85 UPPER EXPLOSIVE LIMIT: 48.0
 EXTINGUISHING MEDIA: Carbon dioxide, foam, or dry chemical.
 UNUSUAL FIRE & EXPLOSION HAZARDS: Extremely flammable. Contents under pressure. Aerosol containers must be stored below 120°F. Keep away from heat, sparks & flames. "Empty" containers retain residue and are still flammable because of the vapor. Do not alter the container
 SPECIAL FIRE FIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure build-up and possible bursting when exposed to high temperatures. Firemen should wear self-contained respiratory equipment.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 100 PPM
 PRIMARY ROUTES OF ENTRY: Eye contact, skin contact, inhalation, and ingestion.
 EFFECTS OF OVEREXPOSURE: • Eyes: May cause moderate eye irritation and moderate corneal injury. Vapors may irritate eyes. • Skin: Prolonged contact may cause irritation and defatting of skin. • Inhalation: May cause irritation of nose and throat. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, and unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. • Ingestion: If aspirated (liquid enters the lungs), it may be rapidly absorbed through the lungs and result in injury to other body systems. Gastro-intestinal distress. Warning: Repeated and prolonged overexposure may lead to permanent brain and nervous system damage.
 EMERGENCY AND FIRST AID PROCEDURES: • Eyes: Flush with flowing water immediately and continuously for 15 minutes. Consult medical personnel. • Skin: Wash off in flowing water or shower. • Inhalation: Remove to fresh air. If not breathing, give mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician. • Ingestion: Do NOT induce vomiting. Call a physician immediately.

SECTION VI REACTIVITY DATA

STABILITY: Stable under normal conditions.
 INCOMPATIBILITY (material to avoid): Strongly oxidizing agents.
 HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
 HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and carbon dioxide.

SECTION VII SPILL AND LEAK PROCEDURES

IF RELEASED OR SPILLED: Small spills: Remove all sources of ignition. Mop up, wipe up, or soak up immediately. Use proper protective equipment. Large spills: Evacuate area. Remove all sources of ignition. Contain liquid; transfer to closed containers; keep out of water supplies.
 WASTE DISPOSAL METHOD: Dispose in accordance with federal, state, and local regulations. Do not incinerate closed or empty containers.

SECTION VIII SPECIAL PROTECTION INFORMATION

VENTILATION: LOCAL XXXXX MECHANICAL OTHER
 RESPIRATORY PROTECTION: NIOSH or Bureau of Mines approved organic vapor-type respirator is required in absence of proper environmental control.
 PROTECTIVE GLOVES: Solvent resistant gloves – impervious gloves.
 EYE PROTECTION: Safety glasses or goggles.
 OTHER PROTECTIVE EQUIPMENT: None reasonably foreseeable.

SECTION IX SPECIAL PRECAUTIONS

HANDLING & STORING PRECAUTIONS: Keep away from heat, sparks, and flame; aerosol containers, contents under pressure. Store below 120°F. Avoid breathing vapors. Avoid prolonged or repeated contact.

PREPARED:

UPDATED: 1/7/11

PRODUCT #: C1207 & C1604