

MANUFACTURER

Castle Products, Inc.
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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® 2-22™ d-Limonene Citrus Hard Surface Cleaner** PRODUCT TYPE: Hard Surface Cleaner

SECTION II HAZARDOUS INGREDIENTS

INGREDIENTS	CAS #	PEL	TLV	STEL	%
2-Butoxyethanol	111-76-2	25ppm skin	25ppm skin	N.E.	4.0%
d-Limonene	5989-27-5	N.E.	N.E.	N.E.	4.0%
Propane/Isobutane/N-Butane	68476-86-8	800ppm	1000ppm	N.E.	4.0%

SECTION III PHYSICAL DATA

BOILING POINT:	-43° F-340° F	SPECIFIC GRAVITY (H ₂ O=1):	0.9541	pH: 12
VAPOR PRESSURE:	55-65	PERCENT VOLATILE BY VOL %:	N.E.	
VAPOR DENSITY (air=1)	Heavier than air	EVAPORATION RATE (Butyl Acetate=1):	Faster than butyl acetate	
SOLUBILITY IN WATER:	Complete	APPEARANCE & ODOR:	White Foam / Citrus	

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (method used): -156° F TCC LOWER EXPLOSIVE LIMIT: 0.7% UPPER EXPLOSIVE LIMIT: 10.6%
 EXTINGUISHING MEDIA: Dry chemical, CO₂, or Foam
 UNUSUAL FIRE & EXPLOSION HAZARDS: Pressure can build up if container exposed to heat.
 SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with full face piece and protective clothing.

SECTION V HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: Inhalation: Vapors are mildly to markedly irritating to the lungs depending on the exposure level. EYES: Product is moderately to severely irritating. SKIN: No adverse effects expected. Brief contact may cause slight irritation. Prolonged contact may cause more severe irritation and discomfort, seen as local redness and swelling. INGESTION: Moderately toxic; can cause irritation to mouth, stomach, and esophagus. May produce central nervous system depression and kidney damage, which may be fatal.
 EMERGENCY & FIRST AID PROCEDURES: INHALATION: Move victim to fresh air. EYES: Immediately flush with water for at least 15 minutes while holding eyelids open. SKIN: Wash with soap and water. INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Seek medical attention.

SECTION VI REACTIVITY DATA

STABILITY: Stable
 INCOMPATIBILITY (material to avoid): Strong acids, alkalis, oxidizers and amines.
 HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Carbon, Oxides of Nitrogen,; may produce forms of Chloride, Chlorine, and Phosgene.
 HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VII SPILL OR LEAK PROCEDURES

IF RELEASED OR SPILLED: Dike and contain. Soak with an absorbent material and dispose of properly.
 WASTE DISPOSAL METHOD: Dispose in accordance with all state, local, and federal regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

VENTILATION: LOCAL XXXXX MECHANICAL OTHER
 RESPIRATORY PROTECTION: If respiratory protection is needed, an appropriate NIOSH approved respirator for organic vapor should be worn.
 PROTECTIVE GLOVES: Wear chemical resistant gloves.
 EYE PROTECTION: Safety glasses or goggles.
 OTHER PROTECTIVE EQUIPMENT:

SECTION IX SPECIAL PRECAUTIONS

HANDLING & STORING PRECAUTIONS: Store at temperatures below 120° F.

PREPARED: 7/24/07

UPDATED: 1/7/11

PRODUCT #: C2025