

Material Safety Data Sheet
Boise Western Corporation

PRODUCT NAME: **BWC HDC-115** CLEANER/DEGREASER 55 DR
PRODUCT CODE: FLIHDCBMBW-HDC-55

===== **SECTION I - MANUFACTURER IDENTIFICATION** =====

MANUFACTURER'S NAME: Formula Corporation
ADDRESS : 4432 C Street NE
Auburn, WA 98002
EMERGENCY PHONE : 800-228-5635 x059 DATE REVISED : 1/4/2006
INFORMATION PHONE : 800-772-7005 NAME OF PREPARER : C. WERNER, CHEMIST

===== **SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION** =====

VAPOR PRESSURE WEIGHT
REPORTABLE COMPONENTS CAS NUMBER mm Hg @ TEMP PERCENT

* 2-BUTOXYETHANOL 111-76-2 0.6 68 DEG F 8
OSHA PEL: 25 PPM SKIN, ACGIH TLV: 25 PPM SKIN, OTHER: NONE
MONOETHANOLAMINE 141-43-5 .2 68 DEG F 3
OSHA PEL: 3 PPM, ACGIH TLV: 3 PPM, OTHER: 6 PPM
SILICIC ACID, DISODIUM SALT 6834-92-0 N/A N/A 2
OSHA PEL: NONE, ACGIH TLV: NONE, OTHER: NONE
* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.
This product may contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

===== **SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS** =====

BOILING POINT: 212 DEG F SPECIFIC GRAVITY (H2O=1): 1.05
VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
SOLUBILITY IN WATER: Complete pH: 12.0 - 13.0
APPEARANCE AND ODOR: Liquid, non-viscous, faint sweet odor.

===== **SECTION IV - FIRE AND EXPLOSION HAZARD DATA** =====

FLASH POINT: NONE METHOD USED: COC
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 1.1 UPPER: 23.5
EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL, WATER FOG
SPECIAL FIREFIGHTING PROCEDURES
Fire fighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers and structures exposed to fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS
None

===== **SECTION V - REACTIVITY DATA** =====

STABILITY: STABLE
CONDITIONS TO AVOID
Excessive heat.
INCOMPATIBILITY (MATERIALS TO AVOID)
Acids, strong oxidizers, many organic chemicals, and organic acids.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS
May liberate carbon monoxide and carbon dioxide. Unidentified organic compounds may be formed during combustion.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

===== **SECTION VI - HEALTH HAZARD DATA** =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Vapors and mists can harmful to the nose, throat, and mucous membranes. Irritation, coughing, chest pain, and breathing difficulty may occur with overexposure. Inhalation of very high concentrations may cause headaches, nausea, vomiting.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

EYES - Vapors, liquid, and mists are irritating. Liquid and mists may damage the eyes. SKIN - Vapor, liquid, and mists are irritating to skin. Prolonged exposure may burn the skin.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Redness, drying of skin, or other signs of irritation or contact dermatitis. May result in primary irritant dermatitis.

ETHYLENE GLYCOL MONOBUTYL ETHER is readily absorbed through the skin causing headaches, nausea, vomiting, and diarrhea.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Vapors, mists, and liquid are irritating to the mouth and throat. Swallowing the liquid burns the tissues, and may cause severe abdominal pain, nausea, and vomiting. May cause red blood cell hemolysis, liver and kidney injury.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Repeated overexposure may cause damage to the liver, kidneys, and red blood cells. May be very irritating to the eyes on contact. Inhalation of vapors, or mists may cause varying degrees of damage to the affected tissues and also increasing susceptibility to respiratory illness.

CARCINOGENICITY: NTP CARCINOGEN: No IARC MONOGRAPHS: No OSHA REGULATED: No

The components of this product are not considered to be carcinogens by the National Toxicology Program, the International Agency for Research on Cancer, or the Occupational Safety and Health Administration.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Persons with pre-existing dermatitis may be more susceptible to the effects of this material.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION - Remove to fresh air. Give artificial respiration if not breathing. EYES - Flush immediately with lots of running water for at least 15 minutes holding eye lids open. GET MEDICAL ATTENTION. SKIN - Immediately flush skin with lots of running water for at least 15 minutes. Remove contaminated clothing and shoes. INGESTION - Drink 1 to 8 glasses of water to dilute. DO NOT INDUCE VOMITING. Consult a physician or poison control center immediately. Treat symptomatically. Do not give anything by mouth to an unconscious or convulsing person.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

For small spills dilute with water, mop or wipe up and contain. For large spills, contain by diking with absorbent material and carefully neutralize with a mild acid. Keep material out of sewers, storm drains, surface waters, and soil.

WASTE DISPOSAL METHOD

Comply with all applicable governmental regulations on spill reporting, handling and disposal of waste. Dispose of contaminated product and materials used in clean up in a manner approved for this material and the contaminant. Consult appropriate Federal, State and Local regulatory agencies to ascertain proper disposal procedures and comply with them.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in a dry, well ventilated place away from incompatible materials. Keep container tightly closed when not in use. Store at temperatures above the solutions freezing point to remain liquid. Do not use pressure to empty container.

OTHER PRECAUTIONS

Empty containers usually still hold residues of material and vapors. These must be considered hazardous and disposed of in accordance with proper handling procedures prescribed for hazardous chemicals. When mixing with water, always add this product to water and stir.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

In the absence of adequate ventilation an approved respirator may be required.

VENTILATION

Be sure to provide adequate ventilation in all working areas at all time. In general, health problems could result from repeated and prolonged exposure to chemical vapors.

PROTECTIVE GLOVES

Wear resistant gloves such as polyethylene or rubber.

EYE PROTECTION

Chemical splash goggles should be worn during application of this product.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Where gross eye and skin contact may occur use and wear appropriate clothing, rubber boots with pants on the outside, and rubber gloves.

WORK/HYGIENIC PRACTICES

Standard hygienic practices must be observed when handling all chemicals.

===== SECTION IX - DISCLAIMER =====

Information contained herein is furnished without warranty of any kind. Employees should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and for the safety and health of employees.