Safety Data Sheet
Product ID: CIS-421

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFICATION
Product ID: CIS-421
Product Name: Top Up Alcohol Resistant (for CIB-013)

1.2 RELEVANT IDENTIFIED USES OF THE PRODUCT
Product Use Industrial applications: For use in industrial ink jet printers

1.3 SUPPLIER
CodeJet
7456 Dogwood Park Dr
Richland Hills, TX 76118-7456
Tel: (817) 788-9171 Website: www.Code-Jet.com
Fax: (817) 788-9576 Email: info@code-jet.com

1.2 EMERGENCY TELEPHONE NUMBER(S)
Medical Poison Control Center USA (800) 222 1222
Transportation INFOTRAC USA (800) 535-5053; Contract# 103326

SECTION 2: Hazards Identification

2.1 CLASSIFICATION OF THE PRODUCT

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>H225</td>
<td>Flammable Liquid 2</td>
<td>Highly flammable liquid and vapor</td>
</tr>
<tr>
<td>H319</td>
<td>Eye Irritant 2A</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H336</td>
<td>STOT SE 3</td>
<td>May cause drowsiness and dizziness</td>
</tr>
</tbody>
</table>

2.2 LABEL ELEMENTS

Danger: Highly flammable liquid and vapor. Irritating to eyes and respiratory system. Suspected of causing cancer. Harmful by inhalation, in contact with skin and if swallowed.
Poison, may be fatal or cause blindness if swallowed. Vapor harmful. Cannot be made non-poisonous.

Harmful: Possible risk of irreversible effects through inhalation, contact with skin and if swallowed. Harmful to aquatic life.

ANSIZ129.1-2006 Label Elements
WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL. Keep away from flame, heat and static discharge sources. Irritant and Central Nervous System depressant. Avoid inhalation of vapors and contact with eyes and skin. May be fatal or cause blindness if swallowed. If inhaled remove to fresh air. If splashed in eyes flush with water for more than 15 minutes. If in contact with skin, flush with water and
wash with mild soap. In medical emergency call the Poison Control Center (USA 1 303 623 5716) and a physician. Read MSDS before using.

2.3 OTHER HAZARDS

Repeated exposure may cause skin dryness or cracking

IF SWALLOWED: Immediately call a Poison Control Center and a physician. Get medical attention. Keep container tightly closed. Store in a well ventilated place.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CAS N0.</th>
<th>EC No.</th>
<th>%</th>
<th>GHS Classification</th>
</tr>
</thead>
</table>
| 2-Butanone   | 78-93-3 | 201-159-0 | <75| Flammable Liquids Category 2  
               |         |        |                             | Serious Eye Damage/Irritation Category 2A |
|              |         |        |    | Specific Target Organ Toxicity (Single Exposure, Narcotic effects) Category 3 |
|              |         |        |    | F;R11 Xi;R36 R66 R67                                                   |
| Acetone      | 67-64-1 | 200-662-2 | <3 | Flammable Liquids Category 2  
               |         |        |                             | Serious Eye Damage/Irritation Category 2A |
|              |         |        |    | Specific Target Organ Toxicity (Single Exposure, Narcotic effects) Category 3 |

### SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

**EYE CONTACT:** Flush immediately with water for 15 minutes. Get medical attention.

**SKIN CONTACT:** Wash with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. Do not re-use clothing until cleaned.

**INHALATION:** Remove to fresh air. Restore breathing. Get medical attention.

**INGESTION:** Do not give liquids if victim is unconscious or drowsy. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Call a Poison Control Center or physician.
SECTION 5: FIRE FIGHTING MEASURES

5.1 PHYSICAL CHARACTERISTICS

FLASH POINT: - 9 °C /16 °F [For 2-Butanone]  
METHOD USED: TCC  
The Flash Point for the ink is expected to be elevated by the presence of Ethanol

FLAMMABLE LIMITS IN AIR BY VOLUME:  LOWER: 1.8%  UPPER: 13.0%

5.2 EXTINGUISHING MEDIA

EXTINGUISHING MEDIA:  Alcohol foam, CO2, dry chemical, water fog.  DO NOT use a direct stream of water.  
Product will float and can be re-ignited on surface of water.

SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS:  
Clear fire area of unprotected personnel.  Do not enter confined fire space without using  
self contained breathing apparatus and protective clothing.  
Keep run-off water out of sewers and water sources.  If risk of water pollution occurs,  
notify appropriate authorities.

UNUSUAL FIRE & EXPLOSION HAZARDS:  
Containers exposed to intense heat from fires should be cooled with water to prevent  
vapor pressure buildup that could result in container rupture.  
Vapors are heavier than air and may spread near ground to sources of ignition. May  
explode when heated or when exposed to flames or sparks. May form explosive or toxic  
mixtures with air.

SPECIFIC HAZARDS:  
Fire creates toxic gases/vapors/fumes of Carbon Monoxide (CO). Carbon Dioxide (CO2).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Avoid eye or skin contact. Place leaking containers in well-ventilated area. Eliminate ignition  
sources. If fire potential exists, blanket spill with foam or use water spray to disperse vapors.  
Contain spill to minimize contaminated area and facilitate salvage or disposal. To clean spill,  
flush area sparingly with water or use an absorbent. Avoid run-off into storm sewers and ditches  
that lead to natural waterways. All cleanup and disposal should be carried out in accordance with  
federal, state and local regulations. If required, state and local authorities should be notified.

6.2 WASTE DISPOSAL METHOD:

Recovered liquids may be sent to a licensed reclamer or incineration facility. Contaminated  
material must be disposed of in a permitted waste management facility. Consult federal, state, or  
local disposal authorities for approved procedures.
SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatible materials. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

Do not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

Keep liquid away from heat, sparks and open flame. Surfaces that are sufficiently hot may ignite even liquid product in the absence of spark or flame. Extinguish pilot lights, cigarettes and turns off other sources of ignition prior to use and until all vapors are gone. Vapors may accumulate and travel to ignition sources distant from handling point flash fire can result.

Keep containers tightly closed when not in use. Use adequate ventilation. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld, or perform similar operations on or near the containers.

Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Store in a cool dry place with adequate ventilation Keep away from open flames and high temperatures.

Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before re-use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL TWA 8 HRS</th>
<th>ACGIH TLV STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Butanone</td>
<td>200</td>
<td>590</td>
</tr>
<tr>
<td>Acetone</td>
<td>750</td>
<td>1800</td>
</tr>
</tbody>
</table>

8.2 PERSONAL PROTECTION

Ventilation: Use only with adequate ventilation to keep employee exposure below any recommended or statutory limits. Use explosion proof ventilation equipment.

Hygiene: Wash hands, forearms and face thoroughly after handling chemical products and before eating. Remove contaminated clothing before reusing. Place eyewash stations and safety showers close to the location of chemical storage and use.

Version: 1.1
Safety Data Sheet

Product ID: CIS-421

Eye Protection: Use approved safety goggles or splash shields when exposed to liquid splashes, mists, gases or dust.

Hand Protection: Wear chemical resistant, impervious gloves when handling chemical products.

Respiratory Protection: Use an air purifying or air fed respirator if exposure will result in exposure in excess of allowable limits. Ensure that the respirator’s safe working rating exceeds the expected exposure.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>PHYSICAL STATE</th>
<th>Liquid</th>
<th>pH</th>
<th>Not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLASH POINT</td>
<td>9°C /16°F</td>
<td>EXPLOSION LIMITS</td>
<td>Lower 1.8 Upper 13</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>56°C /79°F</td>
<td>SPECIFIC GRAVITY</td>
<td>0.805</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>&gt;2.0</td>
<td>EVAPORATION RATE</td>
<td>7.1</td>
</tr>
<tr>
<td>VAPOR PRESSURE</td>
<td>180 @ 20°C</td>
<td>% VOLATILE RATE</td>
<td>99%</td>
</tr>
<tr>
<td>WEIGHT PER GALLON</td>
<td>Negligible</td>
<td>APPEARANCE &amp; ODOR</td>
<td>Black, Not Available</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>Negligible</td>
<td>VOC</td>
<td>83%</td>
</tr>
</tbody>
</table>

9.2 OTHER EXPOSURE GUIDELINES

9.3 ENGINEERING MEASURES

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

SECTION 10: STABILITY AND REACTIVITY

10.1 STABILITY

Stable under normal temperature conditions.

10.2 REACTIVITY

No specific test data related to reactivity available for this product or its ingredients.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Hazardous reactions will not occur under normal conditions of storage and use.

10.4 CONDITIONS TO AVOID

Heat, flames and sparks.

10.5 INCOMPATIBLE MATERIALS

None

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous decomposition products should not be produced under normal conditions. Fire creates toxic gases and vapors of Carbon Monoxide (CO) and Carbon Dioxide (CO₂).
11.1 ACUTE TOXICITY

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butanone</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>23500 mg/m³</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2737 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>6480 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Acetone</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>50100 mg/m³</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5800 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

11.2 CHRONIC TOXICITY

Inhalation of vapors in high concentration may cause irritation of the respiratory system. Concentration above the permissible limits in the workplace may cause dizziness, mild intoxication and headache. Symptoms include headache, dizziness, fatigue, muscular weakness and drowsiness. In extreme cases loss of consciousness may occur.

11.3 IRRITATON/CORROSION

Skin: Causes mild irritation. Repeated exposure may cause skin cracking or dryness.

Eyes: Causes serious eye damage

Respiratory: Not classified. No known significant effects or critical hazards.

11.4 SENSITIZATION

Skin: Not classified. No known significant effects or critical hazards.

Respiratory: Not classified. No known significant effects or critical hazards.

11.5 MUTAGENICITY

Not classified. No known significant effects or critical hazards.

11.6 CARCINOGENICITY

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butanone</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

ACGIH: American Conference of Governmental Industrial Hygienists

IARC: International Agency for Research on Cancer

NTP: National Toxicity Program

OSHA:

ACGIH: Not Listed

IARC: Not Listed

NTP: Not Listed

ACGIH: American Conference of Governmental Industrial Hygienists

IARC: International Agency for Research on Cancer

NTP: National Toxicity Program

OSHA:

ACGIH: Not Listed

IARC: Not Listed

NTP: Not Listed

OSHA:

ACGIH: Not Listed

IARC: Not Listed

NTP: Not Listed

OSHA:

ACGIH: Not Listed

IARC: Not Listed

NTP: Not Listed

OSHA:

ACGIH: Not Listed

IARC: Not Listed

NTP: Not Listed

OSHA:

ACGIH: Not Listed

IARC: Not Listed

NTP: Not Listed

OSHA:

ACGIH: Not Listed

IARC: Not Listed

NTP: Not Listed

OSHA:
11.7 REPRODUCTIVE TOXICITY
Not determined

11.8 DEVELOPMENTAL TOXICITY
Not determined

11.9 TERATOGENIC
Not determined

11.10 TARGET ORGAN EFFECTS
Blood, Central Nervous System, Eyes, Liver, Reproductive System, Respiratory System, Skin

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butanone</td>
<td>Acute EC50 5x10^5 ug/L Marine Water</td>
<td>Algae Skelatonema Costatum Daphnia Magna Fish Cyprinodon Varigatus Juvenile (Fledgling, Hatchling, Weanling) 8 to 15mg</td>
<td>96 hours 48 hours 96 hours</td>
</tr>
<tr>
<td>Acetone</td>
<td>Acute EC50 20.565 mg/L Marine Water</td>
<td>Algae - Ulva pertusa Crustaceans - Gammarus pulex Daphnia - Daphnia Magna Fish - Oncorhynchus mykiss - 1g Daphnia - Daphnia magna - Neonate - 6 to 24 hours</td>
<td>96 hours 48 hours 96 hours 21 days</td>
</tr>
</tbody>
</table>

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Methods
Dispose of the waste according to local regulations. Waste should not be released into the environment. Waste can be incinerated or disposed of in a landfill when in accordance with local regulations. This material, as supplied, is a hazardous waste according to Federal regulations (40 CFR 261).

Contaminated Packaging
Dispose of surplus and non-recyclable product via a licensed waste disposal contractor

Special Precautions
None
### SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>UN</th>
<th>IMDG</th>
<th>IATA</th>
<th>US DOT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number</strong></td>
<td>UN1210</td>
<td>UN1210</td>
<td>UN1210</td>
<td>UN1210</td>
</tr>
<tr>
<td><strong>UN Proper Shipping Name</strong></td>
<td>Printing Ink</td>
<td>Printing Ink</td>
<td>Printing Ink</td>
<td>Printing Ink</td>
</tr>
<tr>
<td><strong>Transport Hazard Class</strong></td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Packaging Group</strong></td>
<td>II</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td><strong>Environmental Hazards</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Special Precautions for User</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Additional Information</strong></td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

ERG  Emergency Response Guide  129

### SECTION 15: REGULATORY INFORMATION

**INTERNATIONAL INVENTORIES**
- **TSCA** United States Substances Control Act Section 8(b) Inventory Complies
- **DSL/NDSL** Canadian Domestic Substances List / Non Domestic Substances List

**US FEDERAL REGULATIONS**
- **SARA 313** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal regulations, Part 372.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butanone</td>
<td>78-93-3</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
</tr>
</tbody>
</table>

**SARA 311/312 HAZARD CATEGORIES**
- Acute Health Hazard: No
- Chronic Health Hazard: No
- Fire Hazard: Yes
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

**CLEAN WATER ACT**

Version: 1.1  Page 8 of 10  August 1, 2015
This product does not contain any substances regulated as pollutants to the Clean Water Act (40CFR 122)

CERCLA  Comprehensive Environmental Response Compensation and Liability Act (CERCLA 40CFR 302) or the Superfund Amendments and Reauthorization Act (SARA 40CFR 355).

2-Butanone  5000lb Final RQ; 2270 kg Final RQ

NATIONAL FIRE PROTECTION ASSOCIATION (USA)

HEALTH 1
FLAMMABILITY 3
REACTIVITY 0

U.S. STATE REGULATIONS

California Proposition 65  This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butanone</td>
<td>78-93-3</td>
<td>Not listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

U.S. STATE RIGHT TO KNOW REGULATIONS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CA</th>
<th>MA</th>
<th>PA</th>
<th>MN</th>
<th>RI</th>
<th>NJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butanone</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Acetone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INTERNATIONAL REGULATIONS

TARIFF CODE HARMONIZED SYSTEM

3215.11 Printing Ink Black
USA  ...00.60
EU   ...00.00

CANADA  This product has been classified in accordance with the hazard criteria of the Controlled Products regulations (CPR) and the MSDS contains all the information required by the CPR.
RISK PHRASES

R11 Highly Flammable
R36/38 Irritating to eyes and skin
R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment
R66 Repeated exposure may cause skin dryness or cracking
R67 Vapors may cause drowsiness and dizziness

SAFETY PHRASES

S7 Keep container tightly closed
S9 Keep container in a well ventilated space
S16 NO SMOKING: Keep away from sources of ignition
S24 Avoid contact with eyes
S25 Avoid contact with eyes
S26 In case of contact with eyes, rinse immediately with water for 15 minutes. Seek medical attention
S33 Take precautions against static discharges
S37 Wear suitable gloves
S46 If swallowed seek medical advice immediately
S51 Use only in well ventilated places
S60 This material and its container must be disposed of as hazardous waste

SECTION 16: OTHER INFORMATION

DISCLAIMER: While CodeJet believes that the data set forth in this sheet is accurate and represents the best information currently available to CodeJet. CodeJet makes no warranty, expressed or implied, with respect thereto and expressly disclaims all liability for reliance thereon.