SECTION 1 - PRODUCT IDENTIFICATION

Product Name: FORMULA 3040
Product Use: Biocide
UN NUMBER: 3077
U.N. DANGEROUS GOOD CLASS/SUBSIDIARY RISK: Environmentally Hazardous Substances, Solid, N.O.S., 9, PGIII
MANUFACTURER'S NAME: Garratt-Callahan Company
ADDRESS: 50 Ingold Road, Burlingame, CA 94010-2206
EMERGENCY PHONE: North America: CHEMTREC: 1-800-424-9300
Outside North America: 1-703-527-3887
BUSINESS PHONE: Product Information: 650-697-5811
MSDS Number: SD3040
DATE OF REVISION: 8/26/2010

The device as provided contains the chemical described in this Safety Data Sheet. Unless the device is damaged and a release of chemical has occurred, the device under normal use should not provide an exposure to the contained chemical.

SECTION 2 - HAZARDS IDENTIFICATION

EU LABELING AND CLASSIFICATION: This product meets the definition of the following hazard class as defined by the European Economic Community Guidelines.

EU CLASSIFICATION: [Xn] Harmful; [C] Corrosive

EU RISK PHRASES: R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

EU SAFETY PHRASES: S36/37: Wear suitable protective clothing and gloves;

WARNING! THIS PRODUCT IS A NON-FLAMMABLE, CORROSIVE SOLID. WHITE TO OFF-WHITE GRANULES. CAUSES SEVERE BURNS OF EYES. IRRITATING TO NOSE AND THROAT. MAY BE FATAL IF SWALLOWED. MAY BURN THE SKIN. HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION.

Potential Health Effects:
Eye Contact: Corrosive. May cause eye irritation or damage.
Skin contact: Irritant. May cause skin sensitization
Inhalation: Irritant to upper respiratory tract. In severe cases pulmonary edema may develop.
Ingestion: Corrosive by ingestion. Abdominal pain, nausea, vomiting and diarrhea.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

<table>
<thead>
<tr>
<th>HEALTH HAZARD (BLUE)</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY HAZARD (RED)</td>
<td>0</td>
</tr>
<tr>
<td>REACTIVITY HAZARD (YELLOW)</td>
<td>1</td>
</tr>
</tbody>
</table>

Hazard Scale:
0=Minimal
1=Slight
2=Moderate
3=Severe
4=Severe
*=Chronic hazard
SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>CAS#</th>
<th>HAZARDOUS</th>
<th>EC#</th>
<th>ICSC#</th>
<th>WT %</th>
<th>Classification: Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 2-DIBROMO-3-</td>
<td>10222-01-2</td>
<td>YES</td>
<td>233-539-7</td>
<td>NE</td>
<td>98</td>
<td>Not Classified</td>
</tr>
<tr>
<td>NITRILOPROPIONAMIDE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000. See Section 3 for full text of Risk Phrases and Safety Phrases

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Hold affected eye open and rinse slowly and gently with water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

SKIN CONTACT: Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INHALATION: Move person to fresh air. If person is not breathing, call 911 or an ambulance. Call a poison control center or doctor for further treatment advice.

INGESTION: Call poison control center, or doctor immediately for treatment advice. Do not give anything by mouth to an unconscious person. Have person sip a glass of water if able to swallow. Do not induce vomiting unless directed by the poison control center or doctor.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

FIRE EXTINGUISHING MATERIALS: Carbon dioxide, dry chemicals, foam, water spray (fog).

UNUSUAL FIRE AND EXPLOSION HAZARDS: When heated to decomposition, may release poisonous and corrosive fumes.

SPECIAL FIRE-FIGHTING PROCEDURES: Cool containers with water spray. Fire fighters should wear full protective clothing & self-contained breathing apparatus in positive pressure mode.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions: If chemical has been released from the device and dust is present, evacuate area, use respirator with appropriate cartridge(s), chemically resistant gloves and chemical safety goggles.

Methods for cleaning up: Sweep up, place in a bag and hold for waste disposal or possible re-use. Ventilate area and wash spill site after material pickup is complete.

SECTION 7 - HANDLING AND STORAGE

Handling: Keep containers tightly closed. Avoid producing or diffusing dust into the air.

Storage: Store in a dry, cool, well-ventilated and shaded area, away from heat sources, and away from incompatible materials (see "materials to avoid" in section 10).
SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

The device as provided contains the chemical described in this Safety Data Sheet. Unless the device is damaged and a release of chemical has occurred, the device under normal use should not provide an exposure to the contained chemical.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Ensure eyewash/safety shower stations are available near areas where employees may be exposed to injurious corrosive materials (29 CFR 1910.151(c)).

EXPOSURE LIMITS/GUIDELINES:

<table>
<thead>
<tr>
<th>CHEMICAL NAME/GUIDELINES</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEELs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA ppm</td>
<td>STEL ppm</td>
<td>TWA ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STEL ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ppm</td>
</tr>
</tbody>
</table>

Note: The product was tested for "Particle size distribution". Results showed that it is non-inhalable.
Manufacturer’s TLV-TWA Recommendation - 0.25 mg/m3

HYGIENE MEASURES: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing after work is completed and wash skin thoroughly with soap and plenty of water. Users should remove PPE immediately after handling this product. As soon as possible wash thoroughly and change into clean clothing.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132 and 1910.138) or equivalent standard of Canada, European Standard DIN EN 374, Australian Standards, relevant Japanese Standards, or EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection). If necessary, refer to appropriate Standards of Canada, EU, Australia, or Japan.

RESPIRATORY PROTECTION: None usually required. If device is damaged and chemical dust is present respiratory protection may be warranted. If necessary a respirator with an organic vapor cartridge with a particulate prefilter and approved for pesticides should be used.

EYE PROTECTION: Chemical safety goggles.

SKIN PROTECTION: Chemically resistant gloves, long sleeve shirt, long pants, apron, and safety shoes. Always consult the glove manufacturer for the appropriate material and glove to use.

NE = Not Established

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE, ODOR and COLOR: White to off-white granules
VAPOR PRESSURE, mm Hg @ 20°C: 8.25x10(-4) mmHg (25°C)

ODOR THRESHOLD: Not established
VAPOR DENSITY (Air=10): Not established

pH: Not established
SPECIFIC GRAVITY@20°C (water=1): 2.375 (21°C)

MELTING/FREEZING POINT: 123 - 125°C
PARTITION COEFFICIENT: n-octanol/water; Not established

BOILING POINT: NA (decomposes)
AUTOIGNITION TEMPERATURE: Not established

FLASHPOINT: Not established
DECOMPOSITION TEMPERATURE: 190°C

EVAPORATION RATE (n-BuAc=1): Not established
VISCOSITY: Not established

FLAMMABLE LIMITS (in air by volume, %): Not established
SOLUBILITY IN WATER: 17±0.05 g/l at 25.7°C
Solubility in other solvents:
acetone - 35 g/100g
methanol - 25 g/100g
dimethyl formamide - 120 g/100g
polyethylene glycol (Mw 200) - 120 g/100g

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

HAZARDOUS DECOMPOSITION: Br2, HBr, CNBr, NOx, C2H5Br, CH3Br.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBLE MATERIALS: Oxidizing agents, reducing agents.

CONDITIONS TO AVOID: Keep away from light and heat. Heating above decomposition temperature.
SECTION 11 - TOXICOLOGICAL INFORMATION

Acute
Oral: LD50, Rat 308 mg/kg
Dermal: LD50, Rat >2000 mg/kg
Inhalation: LC50, Rat 0.32 mg/l/4 hour powder
Eye irritation: Rabbit corrosive
Dermal irritation: Rabbit moderate irritant
Dermal sensitization: sensitizer
Subchronic Toxicity: NOEL: 5mg/kg/day
(13 weeks, oral, rat)

Chronic - not available

NTP Carcinogen (Known): Not included by IARC.
Not included in NTP 11th report on carcinogens.
Mutagenicity - Not mutagenic by the Ames test.
Genotoxicity - Not clastogenic in chromosome aberration test with Chinese hamster cells.
    Not clastogenic in chromosome aberration test with Human lymphocytes.
    Did not induce DNA repair synthesis in the hepatocytes of male rats in vitro.
Reproductive Toxicity: In a 2-generation study in rats, the NOEL for reproduction parameters was >=30 mg/kg/day.
Teratogenicity: Not teratogenic. The NOAEL (for fetal toxicity in rabbits) = 10 mg/kg/day.

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic toxicity:
96 Hour-LC50, Fish 2.3 mg/l (Rainbow trout)
3.4 mg/l (Sheepshead minnow)
2.3 mg/l (Bluegill sunfish)

48 Hour-EC50, Daphnia magna 0.86 mg/l

Marine Invertebrate
0.72 mg/l (Mysid shrimp, 96h)
0.37 mg/l (Eastern oyster, 96h)

Avian Toxicity:
Oral LD50, Bobwhite quail 354mg/kg
Dietary LC50, Mallard duck >5620 ppm
Dietary LC50, Bobwhite quail >5620 ppm

Germany, water endangering classes (WGK):3

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL. Triple rinse prior to disposal in an approved landfill site or recycle. Waste management must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU member States and/or Japan, as appropriate.

SECTION 14 - TRANSPORTATION INFORMATION

DOT
Proper Shipping Name: UN3077, Environmentally Hazardous Substances, solid, N.O.S., 9, PGIII
Hazard Class: 9 Miscellaneous Hazardous Material
UN No.: 3077
Packing Group: III
Marking: MARINE POLLUTANT

IMDG/IMO
Proper Shipping Name: UN3077, Environmentally Hazardous Substances, solid, N.O.S., 9, PGIII
Hazard Class: 9 Miscellaneous Dangerous Substances and Articles
UN No.: 3077
Packing Group: III
Marking: MARINE POLLUTANT
IATA/ICAO
Proper Shipping Name: UN3077, Environmentally Hazardous Substances, solid, N.O.S., 9, PGIII
Hazard Class: 9 Miscellaneous Hazardous Material
UN No.: 3077
Packing Group: III
Hazrd label(s): Miscellaneous

SECTION 15 - REGULATORY INFORMATION

United States and International Regulations

United States Regulations: U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title of the Superfund Amendments and Reauthorization Act, and are listed as follows:

CHEMICAL NAME
2, 2-DIBROMO-3-NITRILOPROPIONAMIDE
SARA 302 (CFR 355, Appendix A) - NO
SARA 304 (40 CFR Table 302.4) - NO
SARA 311 - Immediate and delayed health hazard
SARA 312 - Immediate and delayed health hazard
SARA 313 - On October 27, 1995, EPA published an administrative stay of the EPCRA section 313 reporting requirements for this chemical. Therefore, no Toxics Release Inventory reports are required for 2,2-dibromo-3-nitrilopropionamide until the stay is removed.
This product is registered under FIFRA.
Reported in the EPA TSCA Inventory (Acetamide, 2,2-dibromo-2-cyano-)

U.S. Regulations:
U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.
U.S. CERCLA REPORTABLE QUANTITY (RQ): None
U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.
OTHER U.S. FEDERAL REGULATIONS: Not applicable.

STATE REGULATIONS:
CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): No component of this product is on the Proposition 65 List.

International Regulations:
CANADIAN REGULATIONS:
CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL or NDSL Inventories.
CANADIAN WHMIS CLASSIFICATION: CLASS E - CORROSIVE MATERIAL.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
This material or all of its components are listed on the Canadian Domestic Substances List (DSL).

This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS). EINECS No. 231-838-7

Other Inventory Lists: Korea (KECI), Australia (AISC), China (Draft), Philippines (PICCS), Japan (ENCS METI/MOL), New Zealand (NZIoC)

SECTION 16 - OTHER INFORMATION

PREPARED BY: Garratt Callahan
Revision Date: August 26, 2010 Supercedes: July 20, 2010

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user’s intended purpose or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose.