

Safety Data Sheet

BRIGADIER

SECTION I - IDENTIFICATION

PRODUCT IDENTIFIER: BRIGADIER

PRODUCT CODE: 2280

RECOMMENDED USE: Cleaner and Degreaser

RESTRICTIONS ON USE: None known.

COMPANY NAME: ATCO International

COMPANY ADDRESS: 1401 Barclay Circle SE
Marietta, GA 30060

COMPANY PHONE: 800-723-2826 / 770-424-7550

EMERGENCYPHONE: 800-255-3924 (ChemTel / VelocityEHS, 24 hours / 7 days a week)

SECTION II - HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable Aerosol: Category 2

Gases Under Pressure: Liquefied Gas

Eye Irritant: Category 2A

Skin Sensitization: Category 1

HAZARD STATEMENT(S): **WARNING:** Flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause an allergic skin reaction.

This product contains the following percentage of chemicals of unknown toxicity: *N/A*

PRECAUTIONARY STATEMENTS: Keep away from heat, sparks, open flames and hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Wash hands thoroughly after handling. Wear eye protection and protective gloves. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. Avoid breathing mist, vapors or spray. Contaminated work clothing must not be allowed out of the workplace. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse. Dispose of contents and container in accordance with local, state and federal regulations.

SYMBOL:



HAZARDS NOT OTHERWISE CLASSIFIED: *N/A*

SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CASNUMBER	PERCENT
n-Butane	106-97-8	1-5%
d-Limonene	5989-27-5	1-5%
Propane	74-98-6	0.5-1.5%
4-Nonylphenol, branched, ethoxylated	127087-87-0	0.5-1.5%

Trade Secret Information: A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

SECTION IV - FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical attention if irritation persists.

INGESTION: Rinse mouth with water. Do not induce vomiting unless directed by medical authority. Seek medical attention if irritation persists. Never give anything by mouth to an unconscious person.

INHALATION: Move to fresh air. If irritation or other symptoms develop, seek medical attention.

SKIN: Immediately wash with water for 15 minutes. Remove contaminated clothing and shoes immediately. Seek medical attention if irritation persists.

ACUTE HEALTH HAZARDS: Prolonged contact with skin may cause irritation. Prolonged contact with skin may cause allergic reaction or irritation. Contact with eyes may cause irritation, redness, tearing. Inhalation of mist or vapors may cause respiratory irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Causes eye irritation including redness,

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tearing, and pain. Inhalation of mist or vapors may cause respiratory irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

CHRONIC HEALTH HAZARDS: Dermatitis may occur due to long-term irritation. May cause skin sensitization.

NOTE TO PHYSICIAN: Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

SECTION V - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use appropriate media for surrounding fire.

UNSUITABLE EXTINGUISHING MEDIA: N/A

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved Self-Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires.

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLAMMABLE. Contents under pressure. Exposure to temperatures above 122 °F (50 °C) may cause bursting. Keep away from heat, sparks, open flames and other sources of ignition.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon and unidentified organic compounds may be formed during combustion.

SECTION VI - ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: Refer to section VIII for proper Personal Protective Equipment.

SPILL: Eliminate all sources of ignition. Clean up using cloth or absorbent material. Dispose of product-containing wiping cloth or absorbent paper in suitable manner. Place waste in proper containers for disposal.

WASTE DISPOSAL: Dispose of in accordance with local, state and federal regulations. Do not reuse, puncture or incinerate container. Wrap container and place in trash collection.

RCRA STATUS: Waste likely considered non-hazardous under RCRA; however, product should be fully characterized prior to disposal (40 CFR 261).

SECTION VII - HANDLING AND STORAGE

HANDLING AND STORAGE: Do not use or store near heat, open flames or other sources of ignition. Wear proper personal protective equipment when using this product. Avoid contact with skin, eyes and clothing. Store in a cool, dry area. Protect from sunlight. Store in a well-ventilated area. Do not expose to temperatures exceeding 50 °C/122 °F. Pressurized container: Do not pierce or bum, even after use. Wash hands thoroughly after handling. Wash contaminated clothing and shoes thoroughly before reuse.

OTHER PRECAUTIONS: Keep out of the reach of children. Read and follow the directions on the product label. They are the best guide to using the product in the most effective manner. The label also gives you the necessary safety precautions to protect your health.

INCOMPATIBILITY: None known.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

HAZARDOUS INGREDIENT	OSHA PEL	ACGIH TLV
n-Butane	15 mg/m ³ (total dust)	1000 ppm
d-Limonene	15 mg/m ³ (total dust)	Not Established
Propane	1000 ppm	1000 ppm
4-Nonylphenol, branched, ethoxylated	15 mg/m ³ (total dust)	Not Established

ENGINEERING CONTROLS/ VENTILATION: General ventilation adequate.

RESPIRATORY PROTECTION: Wear NIOSH/MSHA approved respiratory protection if used in confined, poorly ventilated areas.

PERSONAL PROTECTIVE EQUIPMENT: Safety glasses/goggles and chemical resistant gloves.

ADDITIONAL MEASURES: Do not touch eyes when using this product. Wash hands thoroughly with soap and water after use. If clothing becomes contaminated, immediately remove and wash. Contaminated work clothing must not be allowed out of the workplace.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White foam.

ODOR: Citrus.

ODOR THRESHOLD: N/D

pH: 11.7-12.5

MELTING POINT/FREEZING POINT: N/D

INITIAL BOILING POINT AND BOILING RANGE: N/D

FLASH POINT: N/D

EVAPORATION RATE: 0.1 Slow

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FLAMMABILITY (solid/gas): Flammable aerosol.

UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:

LOWER FLAMMABILITY LIMIT: N/D

UPPER FLAMMABILITY LIMIT: N/D

EXPLOSIVE LIMIT LOWER (%): N/D

EXPLOSIVE LIMIT UPPER (%): N/D

VAPOR PRESSURE (mm Hg): N/D

VAPOR DENSITY (AIR=1): N/D

RELATIVE DENSITY (H₂O=1): 0.985 - 1.003@ 77 °F (25 °C).

SOLUBILITY(IES): 100% water.

PARTITION COEFFICIENT: n-OCTANOL/WATER (K_{ow}): N/D

AUTOIGNITION TEMPERATURE: N/D

DECOMPOSITION TEMPERATURE: N/D

VISCOSITY: N/D

SECTION X - STABILITY AND REACTIVITY

REACTIVITY: None known.

CHEMICAL STABILITY: Stable.

POSSIBLE HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: Temperatures greater than 122 °F (50 °C) and sources of ignition. Avoid incompatible materials.

INCOMPATIBLE MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

SECTION XI - TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: n-Butane (106-97-8): LC₅₀ (Inhalation, Rat, 4h) 30957 mg/m³. **d-Limonene** (5989-27-5): LD₅₀ (Oral, Rat) 4400 mg/kg; LD₅₀ (Mouse) 5600 mg/kg; LD₅₀ (Dermal, Rabbit) 5000 mg/kg. **Propane** (74-98-6): LC₅₀ (Inhalation, Rat, 4h) 658 mg/L. **4-Nonylphenol, branched, ethoxylated** (127087-87-0): LD₅₀ (Oral) 3314 mg/kg; LD₅₀ (Dermal, Rabbit) > 3000 mg/kg.

ROUTES OF ENTRY: Eyes, Inhalation, Skin

EYES: Causes irritation, redness, tearing, pain.

INGESTION: Not a likely route of exposure under normal product handling conditions. May cause gastrointestinal irritation, nausea, diarrhea, vomiting.

INHALATION: May cause respiratory tract irritation.

SKIN: May cause irritation, dryness, redness with prolonged or repeated contact.

MEDICAL CONDITION AGGRAVATED: Pre-existing disorders of the skin, respiratory system, and eyes will be aggravated by over exposure.

ACUTE HEALTH HAZARDS: Prolonged contact with skin may cause irritation. Prolonged contact with skin may cause allergic reaction or irritation. Contact with eyes may cause irritation, redness, tearing. Inhalation of mist or vapors may cause respiratory irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Causes eye irritation including redness, tearing, and pain. Inhalation of mist or vapors may cause respiratory irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

CHRONIC HEALTH HAZARDS: Dermatitis may occur due to long-term irritation. May cause skin sensitization.

CARCINOGENICITY: OSHA: No ACGIH: No NTP: No IARC: 3 - Not classifiable OTHER: N/A

SECTION XII - ECOLOGICAL INFORMATION

ECOTOXICITY: d-Limonene (5989-27-5): EC₅₀ (*Pimephales promelas*, 96h) 688 µg/L; EC₅₀ (*Daphnia magna*, 48h) 421 µg/L. **4-Nonylphenol, branched, ethoxylated** (127087-87-0): LC₅₀ (*Pimephales promelas*, 96h) 7.7 mg/L; EC₅₀ (*Daphnia*, 48h) 21.4 mg/L.

PERSISTENCE AND DEGRADABILITY: This product is biodegradable.

BIOACCUMULATIVE POTENTIAL: This product is not expected to bioaccumulate.

MOBILITY IN SOIL: This product is mobile in soil.

OTHER ADVERSE EFFECTS: None known.

SECTION XIII - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Dispose of in accordance with local, state and federal regulations. Do not reuse, puncture or incinerate container. Wrap container and place in trash collection.

RCRA STATUS: Waste likely considered non-hazardous under RCRA; however, product should be fully characterized prior to disposal (40 CFR 261).

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SECTION XIV - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Aerosols, Ltd. Qty.

HAZARD CLASS/DIVISION: 2.1

UN/NA NUMBER: UN1950

PACKING GROUP: N/A

AIR SHIPMENT

PROPER SHIPPING NAME: Aerosols, flammable.

HAZARD CLASS/DIVISION: 2.1

UN/NA NUMBER: UN1950

PACKING GROUP: N/A

SHIPPING BY WATER:

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Aerosols.

HAZARD CLASS/DIVISION: 2.1

UN/NA NUMBER: UN1950

PACKING GROUP: N/A

ENVIRONMENTAL HAZARDS WATER: N/A

SECTION XV - REGULATORY INFORMATION

TSCA STATUS: All chemicals are listed or exempt.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): None.

SARA 311/312 HAZARD CATEGORIES: Health Hazard and Physical Hazard.

SARA 313 REPORTABLE INGREDIENTS: This product does not contain any chemical components with known CAS numbers that exceed the threshold (*de minimis*) reporting levels established by SARA Title III, Section 313.

CLEAN WATER ACT: None.

STATE REGULATIONS: California Proposition 65: This product does not contain chemicals regulated by California Proposition 65.

INTERNATIONAL REGULATIONS: No information available.

VOLATILE ORGANIC COMPOUNDS (VOC): 7.9%

NFPA HEALTH: 2

NFPA FLAMMABILITY: 2

NFPA REACTIVITY: 0

NFPA OTHER: None

HMIS HEALTH: 2

HMIS FLAMMABILITY: 2

HMIS REACTIVITY: 0

HMIS PROTECTION: B

SECTION XVI - OTHER INFORMATION

PREPARATION BY: Technical Services

DATE PREPARED: 10/07/2024

REVISION DATE: 10/07/2024

N/A = Not Applicable; N/D = Not Determined

DISCLAIMER: To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this SDS. The user is responsible for full compliance.

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