

## **EMS BlowOut** **SYNTHETIC ACID, NON-CAUSTIC, NON-REGULATED** **LINE CLEANER, DESCALER & BIOCID**

**BlowOut** breaks down calcium, lime, scale, milk stone, beer stone and other deposits which, until now, required the use of corrosive and dangerous acids or caustics. What's more, because SynTech is not an acid, we can combine it with surfactants, detergents and other ingredients to eliminate secondary and tertiary steps in your cleaning process.

**BlowOut** is a most aggressive line cleaner and descaler, yet non toxic and non corrosive. Independent tests confirm that our patented SynTech®, the world's only synthetic acid, dissolves nearly 15% more calcium than Muriatic (hydrochloric) acid. Still, all that potency comes with a triple-zero Hazardous Material Index Score, which makes our line cleaner safe for your equipment, safe for your personnel and completely safe to store.

The potency of BlowOut combined, with its unique safety profile, makes it the natural choice of the U.S. Navy and U.S. Coast Guard. In fact, BlowOut is the only non-acid cleaner that meets current Navy requirements for the cleaning of heat exchangers aboard their ships.

**BlowOut** can also be used to safely descale cooling towers, heating coils, boilers and any equipment that tends to build up calcium such as in food preparation plants, hospitals, even nuclear power facilities.

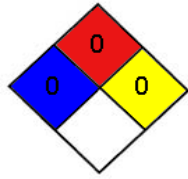
**BlowOut** also contains **Xtreme** live vegetative microbe solution to provide powerful biocidal properties, especially in applications such as cooling towers or build up of micro-organisms in piping systems or tanks.

As **BlowOut** neutralizes instantly with fresh water, we remove the time and material costs associated with additional steps needed with acid-based products. BlowOut is biodegradable per OECD 301D and removes no trace metals from the system, making it legal to dispose of the treated water directly into the sanitary system. BlowOut is 100% non-corrosive and non-regulated by the D.O.T., and is non-mutagenic to marine life.

**BlowOut** has been recognized for safer chemistry by the EPA's Design for Environment program and is certified as a direct release product.

**For more information contact: + 613 8526 8252**

# REBA



## COMMON USES

**BlowOut** is the most aggressive line cleaner and descaler available. Tests confirm that the patented SynTech®, the world's only synthetic acid, dissolves 15% more calcium than Muriatic (hydrochloric) acid. Its triple-zero HMIS makes Blow Out safe for your equipment and people and safe to store where you wish. As BlowOut neutralizes instantly with fresh water, we remove the time and material costs associated with additional steps needed with acid based products. Blow Out removes no trace metals from the system, making it legal to dispose effluent water directly into the sanitary system.

## USE DIRECTIONS

Introduce into pipes or environment where descaling and cleaning is needed.

## DILUTION RATIO

Light Build up, Regular Cleaning	20:1
Moderate Line Cleaning	3:1
Severe Build up and Scale Removal	1:1

## PACKAGING OPTIONS

BlowOut is available in 5L, 20L or 200L drums.

For high volume applications, a 1,000L Industrial Bulk Container is also available upon request.

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## TECHNICAL DATA

NITRATE LEVEL: 0% - None

SHIPPER REGULATIONS: None

FORM: Liquid

FLASH POINT: None

ODOR: Mild Soapy Odour

BOILING POINT: 100° C

COLD STABILITY: - 13° C

SOLUBILITY IN WATER: 100%

DETERGENCY: Moderate

BIODEGRADABLE: Yes/100%

TOXICITY: Non Toxic

VOLATILE BY VOLUME: N/A

WETTING ABILITY: Excellent

CARCINOGENS: None

STORAGE STABILITY: 1 Year

VISCOSITY: Thin

## CLASSIFICATIONS & APPROVALS

**D.O.T., TDG, IMO, IATA, IMDG, SARA 313 311/312, California Prop 65**

NON-Regulated

**FDA**

Approved as Safe (GRAS), (CGMP) CFR 184.1914

**USDA Authorization**

USDA A1, A2, A3, A4, A7, A8 C2, C6, C7

## APPROVALS

NAVSEA

NSN-6850015428898 / 5 gallon pail

NSN-68500154288904 / 55 gallon drum

NSN-68500154288912 / 275 gallon tote

U.S. Coast Guard

NOAA

HRSD for direct disposal into VA sewer system

**EPA Design for Environment** Recognized for Safer Chemistry [www.epa.gov/dfc](http://www.epa.gov/dfc)

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## **Toxicity Studies**

### **Toxicity Limits: Test Procedure OECD 202, 48 hr.**

LC 50 and LD 50 (rat oral) scores found BlowOut to be NON-TOXIC.

### **Mutagenicity Limits: OECD Guidelines Sec. 471 Chemicals**

BlowOut was found NOT TO BE MUTAGENIC

## **Dermal Irritation & Corrosion Test**

A modified Draize method was used as described in OECD Guidelines for the Testing of Chemicals Sec. 404 and complies with the requirements of OECD Principles of GLP, Annex revised as of July 1992.

BlowOut received a Primary Irritation Score of 0.6 +/-0.1 and is classified as a “Non-Skin Irritant”

## **Biodegradation & Aquatic Safety**

Test Procedure: Hach Reactor Digestion method for Waste Water and Sea Water. Hach Reactor Digestion Method is a semi-micro adaptation of the Standard Methods.

Test Results Conclude BlowOut was found to be 100% Biodegradable

## **Ecological Safety**

96 hr LC50: Flathead Minnow >600 mg/l = Non-Toxic

96 hr LC50: Bluegill >20 mg/l = Non-Toxic

96hr LC50: Rainbow Trout >20 mg/l = Non-Toxic

## **Metal Studies**

Dept. of Transportation (D.O.T.) Test Protocols as per Section 173.154

Exceptions for Class 8 (corrosive materials): The material being tested must be proven to be non-destructive or not to cause irreversible alterations in human skin tissue. Testing was conducted on an albino rabbit.

**Conclusion:** BlowOut was proven to be NON-DESTRUCTIVE on human skin tissue.

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**Metal Test Limits:** D.O.T. Classifies a material to be CORROSIVE if it has a corrosion rate that exceeds 6.25 mmpy on SAE C1020 carbon steel.

Results of BlowOut: SAE 1020 carbon steel = 0.23 mmpy

**Conclusion:** BlowOut is NON-CORROSIVE

## DISSOLVING PROPERTIES

### Calcium Oxide Dissolving Properties HCl (Muriatic Acid)

	<b>10.3</b>
Muriatic (HCl)	<b>8.9</b>
Sulphuric	<b>8.4</b>
Urea Sulphuric	<b>7.2</b>
Polymaleic Acid	<b>1.3</b>
Phosphoric Acid	<b>0.9</b>
Citric Acid	<b>0.0</b>

Percent of one inch calcium carbonate cube dissolved in 3 min.

### Test Conditions

200 grams of 5% active solution

1 Calcium Oxide Cube

3 Minutes @ 21°C / 70 °F

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