Z BioScience Inc. **SAFETY DATA SHEET**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: MAX Degreaser + Cleaner

ZB/MAX/xxxx Product Code: (xxxx signifies container size)

Other means of identification: None

Recommended use of the chemical and restrictions on use

Recommended Use: Cleaning agent Uses advised against: Use only as stated on label

Product Dilution: Heavy soil 1/5; Normal soil 1/20; Light soil 1/40

Details of the supplier of the safety data sheet

Manufactured by / Distributed by:

Z BioScience Inc. 800 S. Ohio St. Tuscola, IL 61953 USA

Telephone numbers:

24 Hour Emergency Phone Number: INFOTRAC (800) 535-5053

Company Phone Number: (310) 643-1402

2. HAZARDS IDENTIFICATION

Physical state: Liquid Appearance: Clear, slightly hazy Odor: Slightly soapy

| Classification | Concentrated Product | Product Diluted >1:10 |
|---------------------------|----------------------------|----------------------------|
| Acute toxicity - Oral | Category 4 | No significant hazards |
| Eye irritation | Slight irritation possible | Slight irritation possible |
| Respiratory sensitization | No significant hazards | No significant hazards |
| Skin sensitization | No significant hazards | No significant hazards |

Signal Word: Warning abel Elements Signal Word: None

Hazard statements:

Harmful if concentrate is swallowed May cause eye irritation





Product Diluted >1:10

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication

Standard (29 CFR1910.1200.

Emergency Overview - Concentrated Product

GENERAL STATEMENT: IN ALL CASES OF DOUBT OR WHEN SYMPTOMS PERSIST, ALWAYS SEEK MEDICAL ATTENTION!

Precautionary Statements - Response: Specific Treatment (See Section 4 in the SDS)

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/attention.

IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms contact a doctor/physician.

IF SWALLOWED: Call a Poison Center or doctor/physician if you feel unwell.

Precautionary Statements - Disposal

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Precautionary Statements - Storage

Keep out of reach of children.

Hazards not otherwise classified (HNOC)

None known.

Other information

0% of the mixture consists of ingredient(s) of unknown toxicity Unknown Acute Toxicity:

| 3. COMPOSITION/INFORMATION ON INGREDIENTS | | | | |
|---|--------------------------|------------|------------|--|
| Chemical Name | Common name and synonyms | CAS number | %* | |
| Glycerol | | 56-81-5 | 10 - < 20* | |
| Sodium Citrate | | 6132-04-3 | 1 - < 11* | |
| Other components below re | portable levels | | 80 - < 95* | |

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

| | Concentrated Product | <u>Diluted Product >1:10</u> |
|-------------------------------------|---|--|
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a doctor/physician if you feel unwell. | Non-reactive. No First-aid needed |
| Skin Contact | Take off all contaminated clothing. Wash off with soap and water. Call physician if you feel unwell. Wash contaminated clothing before reuse. | Non-irritating. No First-aid needed |
| Eye Contact | Immediately flush eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Contact a physician immediately. | May be slightly irritating. Rinse thoroughly with plenty of water. If irritation persists contact physician. |
| Ingestion | Call physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from physician or poison control center. If vomiting occurs, keep head low so that stomach content does not get into the lungs. | |
| Symptoms/effects, acute and delayed | Prolonged exposure may cause chronic effects. | None |
| Special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed. | None anticipated. |
| General information | Follow directions above. If you feel unwell seek medical advice if possible. | e. Show label and SDS to attending First-aid giver and/or physician |

5. FIRE-FIGHTING MEASURES

| | Concentrated Product | Diluted Product >1:10 |
|---------------------------------------|---|-----------------------|
| Suitable extinguishing media | Alcohol resistant foam. Dry powder. Carbon dioxide (CO2) | Does not burn. |
| Unsuitable extinguishing media | Do not use water jet as extinguisher may spread the fire. | None |
| Specific hazards arising from the | During fire, gases hazardous to health may be formed. | Does not burn. |
| burning of chemicals | | |
| Fire fighting equipment/instructions | Move containers from fire area if you can do so without risk. | Does not burn. |
| Specific methods General fire hazards | Use standard firefighting procedures and consider the hazards of other involves No unusual fire or explosion hazards noted. | ved materials. |

6. ACCIDENTAL RELEASE MEASURES

| | Concentrated Product | Diluted Product >1:10 |
|--|--|---|
| Personal precautions, protective equipment and emergency procedures Methods and materials for containment and cleaning up | Keep unnecessary personnel away from spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Floor may be slippery. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS This product is miscible in water. Large spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor or | None needed. Caution floor may be slippery. Where possible, vacuum spilled liquid to recover material. Rinse |
| | divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. | water may be disposed of down a sanitary sewer system if authorized by the local municipality. |
| Environmental precautions | Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. | None needed - non-toxic, non- hazardous in diluted form. |

7. HANDLING AND STORAGE

| Precautions for safe handling | Avoid prolonged exposure. Do not tatst or swallow. When using, do not eat, | Normal ventilation is adequate. Avoid contact with eyes. Wear safety glasses. |
|--|--|---|
| Conditions for safe storage, including any incompatibilities | Store locked up. Keep away from children and pets. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). | |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Occupational e | xposure limits |
|----------------|----------------|
|----------------|----------------|

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Chemical Name | Туре | Value | From | |
|------------------------|------|-----------------------|----------------------|--|
| Glycerol (CAS 56-81-5) | PEL | 5 mg/m ³ ੍ | Respirable fraction. | |
| | | 15 mg/m³ | Total dust | |

| Biological limit values | No biological exposure limits noted for the ingredient(s) | No exposure limits. |
|----------------------------------|--|--------------------------------|
| Appropriate engineering controls | Good general ventilation should be used. Ventilation rates should be | Normal ventilation is adequate |

Individual protection measures, such as personal protective equipment

| Eye/face protection | Wear safety glasses with side shields or goggles | Safety glasses recommended |
|--------------------------------|--|-------------------------------------|
| Skin protection - hands/other | Wear appropriate chemical resistant gloves. Suitable gloves can be | None normally required. If allergic |
| | recommended by the glove supplier. Wear appropriate chemical resistant | wear gloves and appropriate |
| | clothing. Use of an impervious apron is recommended. | clothing/apron. |
| Respiratory protection | Chemical respirator with organic vapor cartridge and full face piece if | None normally required. |
| | threshold limits are exceeded. | |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary | None needed |
| General hygiene considerations | Keep away from food and drink. Always observe good personal hygiene | Observe good hygiene practices |
| | measures, such as washing after handling the material and before eating, | |
| | drinking, and/or smoking. Routinely wash work clothing and protective | |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | Concentrated Product | Diluted Product >1:10 |
|--|---------------------------------------|--------------------------------|
| Appearance | Clear; slightly hazy | Clear |
| Physical state | Liquid | Liquid |
| Form | Liquid | Liquid |
| Color | Light yellow | Clear |
| Odor | Soapy | Slightly soapy |
| Odor threshold | Not available | Not available |
| pH | 7.5 - 8.5 | Not available |
| Melting point/freezing point | 23°F (-5°C) estimated | 32°F (-0°C) estimated |
| Initial boiling point and boiling range | 212 °F (100°C) estimated | 212 °F (100°C) estimated |
| Flash point | Not available | Not available |
| Evaporation rate | Not available | Not available |
| Flammability (solid, gas) | Not available | Not available |
| Upper/lower flammability limits | Not available | Not available |
| Upper/lower explosive limits | Not available | Not available |
| Vapor pressure | 0.01 hPa estimated | Not available |
| Vapor density | Not available | Not available |
| Relative density | Not available | Not available |
| Solubility(ies) in water | Complete | Complete |
| Partition coefficient (in n-octanol/water) | Not available | Not available |
| Auto-ignition temperature | 739°F (393°C) estimated | >739°F (393°C) estimated |
| Decomposition temperature | Not available | Not available |
| Viscosity | Not available | Not available |
| Density | 10.80 lbs/gal estimated | Not available |
| Explosive properties | Not explosive | Not explosive |
| Flammability class | IIIB - non-flammable, non-combustible | Non-flammable, Non-combustible |
| Oxidizing properties | Not oxidizing | Non oxidizing |
| Percent volatile | 70.07% | Not available |
| Specific gravity | 1.08 | Not available |
| VOC (weight %) | 14.13% estimated | Not available |
| | | |

| 10. STABILITY AND REACTIVITY | | |
|--|---|-----------------------------------|
| | | T |
| Reactivity Chemical stability | The product is stable and non-reactive under normal conditions of use. Material is stable under normal conditions | None known Stable |
| ossibility of hazardous reactions | No dangerous reaction known under conditions of normal use | None known |
| onditions to avoid | Contact with incompatible materials | None known |
| ncompatible materials | Strong oxidizing agents | None known |
| lazardous decomposition | No hazardous decomposition products are known. | None known |
| 11. TOXICOLOGICAL INFORMATIO | N | |
| nformation on likely routes of exposi | <u>ure</u> Concentrated Product | Diluted Product >1:10 |
| nhalation | Not classified | Not classified |
| kin contact | No significant hazard | Not harmful |
| ye contact | Direct contact with eyes may cause temporary irritation Sodium Citrate test Result: No irritation - Rabbit | Slight irritation possible |
| ngestion | Not available | Not available |
| ymptoms related to the physical, | Direct contact with eyes may cause temporary irritation | Slight irritation possible |
| nformation on toxicological effects | | |
| Acute toxicity | Harmful if swallowed Oral: LD50* Species: Mouse Test Result: 5.4 mg/kg Species: Rat Test Result: 11.7 mg/kg | No significant hazards |
| kin corrosion/irritation | * Estimates for product may be based on additional data not shown | Not harmful |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation | Slight irritation possible |
| | Sodium Citrate test Result: No irritation - Rabbit | |
| espiratory or skin sensitization | | <u> </u> |
| kin sensitization Skin sensitization - Sodium Citrate | This product is not expected to cause skin sensitization OECD Result: No sensitization Species: Guinea pig | None expected |
| Germ cell mutagenicity | OECD Result: No skin irritation Species: Rabbit No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | None expected |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) - | None known |
| Reproductive toxicity | NOT LISTED This product is not expected to cause reproductive or developmental effects. | None known |
| pecific target organ toxicity - | Not classified | None known |
| epeated exposure | Net an analysis a beautiful | Nat barret d |
| spiration hazard | Not an aspiration hazard | Not harmful |
| 12.ECOLOGICAL INFORMATION | | |
| | Concentrated Product | Diluted Product >1:10 |
| cotoxicity | Not available | No significant hazards |
| ersistence and degradability | Not available | No significant hazards |
| Mobioity in soil | Not available | No significant hazards |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, | No significant hazards |
| | photochemical ozone creation potential, endocrine disruption, global | |
| | warming potential) are expected from this component. | |
| 3. DISPOSAL CONSIDERATIONS | | |
| | Concentrated Product | Diluted Product >1:10 |
| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste | Where possible, vacuum spilled |
| | disposal site. Do not allow this material to drain into sewers/water supplies. | liquid to recover material. Rinse |
| | Do not contaminate ponds, waterways or ditches with chemical or used | water may be disposed of down a |
| | container. Dispose of contents/container in accordance with | sanitary sewer system if authoriz |
| | local/regional/national/international regulations. | by the local municipality. |
| ocal disposal regulations | Dispose in accordance with all applicable regulations. | No known hazards |
| | | |
| lazardous waste code | The waste code should be assigned in discussion between the user, the | No hazardous |

producer and the waste disposal company.

disposed of in a safe manner (see: Disposal instructions).

Dispose of in accordance with local regulations. Empty containers or liners

may retain some product residues. This material and its container must be

Not hazardous

Waste from residues / unused

products

| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings | Not hazardous |
|------------------------|--|---------------|
| | even after container is emptied. Empty containers should be taken to an | |
| | approved waste handling site for recycling or disposal. | |

14. TRANSPORT INFORMATION

| | Concentrated Product | Diluted Product >1:10 |
|---|----------------------------------|-----------------------|
| DOT | Not regulated as dangerous goods | |
| IATA | Not regulated as dangerous goods | |
| IMDG | Not regulated as dangerous goods | |
| Transport in bulk according to Annex II | Not established | |
| of MARPOL 73/38 and the IBC Code | | |
| - | | |

15. REGULATORY INFORMATION

| | Concentrated Product | | Diluted Product >1:10 | |
|--|--|------------------------|-----------------------|--|
| US Federal Regulations | This product is a Hazardous Chemical as defined by the OSHA Hazard | | Not hazardous | |
| | Communication Standard, 29 | | | |
| TSCA Section 12(b) Export Notification | i i | | Not applicable | |
| CERCLA Hazardous Substance List (40 | Not listed | | Not applicable | |
| SARA 304 Emergency release | Not regulated | | Not applicable | |
| OSHA Specifically Regulated | Not listed. | | Not applicable | |
| Superfund Amendments and | | | | |
| Reauthorization Act of 1986 (SARA) | Hazard categories | Immediate Hazard - Yes | Not applicable | |
| | | Delayed hazard - No | | |
| | | Fire hazard - No | | |
| | | Pressure hazard - No | | |
| | | Reactivity hazard - No | | |
| | SARA 302 Extremely | Not listed | Not applicable | |
| | hazardous substance | | | |
| | SARA 311/312 hazardous | No | Not applicable | |
| | chemical | | | |
| | SARA 313 (TRI reporting) | Not regulated | Not applicable | |

Other Federal Regulations

| | Concentrated Product | <u>Diluted Product >1:10</u> |
|---------------------------------------|----------------------|---------------------------------|
| Clean Air Act (CAA) Section 112 | Not regulated | |
| Hazardous Air Pollutants (HAPs) List | | |
| Clean Air Act (CAA) Section 112(r) | Not regulated | |
| Accidental Release Prevention (40 CFR | | |
| 68.130) | | |
| Safe Drinking Water Act (SDWA) | Nor regulated | |

US State Regulations

| OS State Regulations | Concentrated Product | Diluted Product >1:10 |
|--|---|--|
| US. California Controlled Substances. | Not listed. | Not applicable |
| US. Massachusetts RTK - Substance | Glycerol (CAS 56-81-5) | Product quantity below regulation |
| US. New Jersey Worker and | Glycerol (CAS 56-81-5) | limits Product quantity below regulation |
| US. Pennsylvania Worker and | Glycerol (CAS 56-81-5) | limits Product quantity below regulation |
| Community Right-to-Know Law US. Rhode Island RTK | Not regulated | limits Not applicable |
| US. California Proposition 65 | California Safe Drinking Water and Toxic Enforcement Act of 1986 | Not applicable |
| os. camo.ma i roposition os | (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. | , vot appricable |

International Inventories

| Country(s) or Region | Inventory Name | On Inventory (yes/no)* | |
|-----------------------------|--|------------------------|--|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes | |
| Canada | Domestic Substances List (DSL) | Yes | |
| Canada | Non-domestic Substances List (NDSL) | No | |
| China | Inventory of Existing Chemical Substances in China (IEDSD) | Yes | |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No | |
| Europe | European List of Notified Chemical Substances (ELINCS) | No | |
| Japan | Inventory of Existing and New Chemical Substances (ENCS | No | |
| Korea | Existing Chemicals List (ECL) | No | |
| New Zealand | New Zealand Inventory | Yes | |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes | |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes | |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or are exempt from listing on the inventory administered by the governing country(s).

16. OTHER INFORMATION

| | Concentrated Product | | | Diluted Product >1:10 | | |
|---------------------|----------------------|--------------|--|-----------------------|--------------|--|
| | HMIS® Ratings | NFPA Ratings | | HMIS® Ratings | NFPA Ratings | |
| Health | 1 | 1 | | 0 | 0 | |
| Flammability | 0 | 0 | | 0 | 0 | |
| Instability | 0 | 0 | | 0 | 0 | |
| Personal Protection | Α | Α | | - | - | |

Symbol

Regulatory Department Prepared by: 1/14/2016 Issue date **Revision date**

5/1/2016

Disclaimer

Version #

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision Information

Physical & Chemical Properties: Multiple Properties

Regulatory Information: United States.

END OF SDS