



SAFETY DATA SHEET

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

GLB STRIKE OUT

Version 1.1

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SECTION 1. IDENTIFICATION

Product name : GLB STRIKE OUT **A5004**

Manufacturer or supplier's details

Company : Arch Chemicals, Inc.
1200 Bluegrass Lakes Parkway
Alpharetta, GA
30004
United States of America (USA)

E-mail address : sds@lonza.com
Emergency telephone number : In case of emergency call CHEMTREC US: 1-800-424-9300,
CHEMTREC WORLD-WIDE: +1-703-527-3887.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a dangerous substance according to GHS.

GHS label elements

Not a dangerous substance according to GHS.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name / Synonyms	CAS-No.	Concentration (% w/w)
2,2',2''-Nitrilotriethanol	102-71-6	15 - 25
2-Aminoethanol	141-43-5	10 - 20
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1	10 - 18
Citric acid	77-92-9	0 - 4

SECTION 4. FIRST AID MEASURES

General advice : Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If inhaled : IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration,



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		preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
In case of skin contact	:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
In case of eye contact	:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed	:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Carbon dioxide (CO ₂) Dry powder Foam
Specific hazards during firefighting	:	Will not burn
Further information	:	Use water spray to cool unopened containers. In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus. Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Evacuate personnel to safe areas.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).



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SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not take internally.
Avoid contact with skin, eyes and clothing.
If in eyes or on skin, rinse well with water.
Avoid breathing vapours, mist or gas.
- Conditions for safe storage : Store in a cool, dry and well ventilated place. Isolate from incompatible materials.
Do not freeze.
- Materials to avoid : Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2,2',2''-Nitrilotriethanol	102-71-6	TWA	5 mg/m ³	ACGIH
2-Aminoethanol	141-43-5	TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH
		STEL	6 ppm 15 mg/m ³	NIOSH/GUIDE
		REL	3 ppm 8 mg/m ³	NIOSH/GUIDE
		PEL	3 ppm 6 mg/m ³	OSHA_TRANS
		TWA	3 ppm 8 mg/m ³	Z1A
		STEL	6 ppm 15 mg/m ³	Z1A
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1	REL (Dust and mist.)	1 mg/m ³ (as Cu)	NIOSH/GUIDE
		(Fume.)		ACGIH
		(Dust and mist.)		ACGIH
		TWA (Dust and mist.)	1 mg/m ³ (as Cu)	ACGIH
		TWA (Fume.)	0.2 mg/m ³ (as Cu)	ACGIH
		REL (Fume.)	0.1 mg/m ³ (as Cu)	NIOSH/GUIDE

- Engineering measures** : Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Personal protective equipment

- Respiratory protection : Wear a NIOSH approved respirator if levels above the exposure limits are possible.



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A NIOSH approved air purifying respirator with organic vapor cartridge and N95 particulate filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

Hand protection

Remarks : Avoid contact with skin. Impervious gloves

Eye protection : Safety glasses with side-shields

Skin and body protection : Impervious clothing

Protective measures : Emergency eyewash should be provided in the immediate work area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : no data available

Odour : no data available

Odour Threshold : no data available

pH : 9.7 - 10.3

Melting point/freezing point : no data available

Boiling point/boiling range : 212 °F / 100 °C

Flash point : no data available

Evaporation rate : no data available

Flammability (solid, gas) : The product is not flammable.

Flammability (liquids) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : no data available

Relative vapour density : no data available

Relative density : 1.190 - 1.210 (68 °F / 20 °C)

Density : Not applicable

Bulk density : no data available

Water solubility : soluble in cold water



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Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	no data available
Decomposition temperature	:	no data available
Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	no data available

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	Stable under normal conditions.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Acids Nitrites
Hazardous decomposition products	:	Carbon oxides Nitrogen oxides (NOx) Hydrogen chloride

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure :

Eyes
Skin
Ingestion

Acute toxicity

Acute oral toxicity	:	LD50 (Rat): Believed to be approximately 4,200 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate: 35.76 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	:	LD50 (Rabbit): Believed to be > 2,000 mg/kg
Acute toxicity (other routes of administration)	:	Remarks: May cause mild eye irritation. Ingestion may cause mild gastrointestinal discomfort. Inhalation of mist or vapor may cause irritation to the mucous membranes of the respiratory tract.

Skin corrosion/irritation

Remarks: Not expected to be irritating to the skin.



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Serious eye damage/eye irritation

Result: Mild eye irritation

Respiratory or skin sensitisation

Remarks: This material is not known or reported to be a skin or respiratory sensitizer.

Carcinogenicity

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Repeated dose toxicity

Remarks: Not known or reported to cause subchronic or chronic toxicity.

Further information

Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

Components:

2,2',2''-Nitrilotriethanol:

Partition coefficient: n-octanol/water : log Pow: -2.3

2-Aminoethanol:

Partition coefficient: n-octanol/water : log Pow: -1.91 (25 °C)
Method: OECD Test Guideline 107

Copper, [carbonato(2-)]dihydroxydi-:

Partition coefficient: n-octanol/water : Remarks: no data available

Citric acid:

Partition coefficient: n-octanol/water : log Pow: -1.72 (20 °C)



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Method: OECD Test Guideline 107

Mobility in soil

no data available

Other adverse effects

Ozone-Depletion Potential : Regulation: US. EPA Clean Air Act (CAA) Section 602 Ozone-Depleting Substances (40 CFR 82, Subpt. A, App A & B)
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Toxic to fish and other aquatic organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.
As a nonhazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations.

Contaminated packaging : Empty containers retain hazardous residue, dispose of accordingly.

SECTION 14. TRANSPORT INFORMATION

DOT : Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable



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TDG : Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable

IATA : Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable

IMDG : Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable

ADR : Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable

RID : Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable

Special precautions for user : none

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

EPA Registration number : 8959-2
 Signal word : CAUTION!
 Hazard statements : This pesticide is toxic to fish.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity



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Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
2,2'-Iminodiethanol	111-42-2	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

See above: SECTION 2. Hazard Identification-GHS Classification

SARA 313

Components	CAS-No.	Concentration
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1	10 - 18 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Components	CAS-No.	Concentration
2,2'-Iminodiethanol	111-42-2	0.01 - 0.1 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Components	CAS-No.	Concentration
2-Aminoethanol	141-43-5	10 - 20 %

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

Components	CAS-No.	Concentration
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1	10 - 18 %

US State Regulations

Massachusetts Right To Know

Components	CAS-No.
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2,2',2"-Nitrilotriethanol	102-71-6
2-Aminoethanol	141-43-5

Pennsylvania Right To Know

Components	CAS-No.
Water	7732-18-5
2,2',2"-Nitrilotriethanol	102-71-6
2-Aminoethanol	141-43-5
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1

New Jersey Right To Know

Components	CAS-No.
Water	7732-18-5
2,2',2"-Nitrilotriethanol	102-71-6
2-Aminoethanol	141-43-5
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1
Citric acid	77-92-9

California Prop. 65**WARNING** Cancer - www.P65Warnings.ca.gov.

Components	CAS-No.
2,2'-Iminodiethanol	111-42-2

Canadian lists**NPRI**

Components	CAS-No.
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1
2,2'-Iminodiethanol	111-42-2

The components of this product are reported in the following inventories:

TSCA : This is an EPA registered pesticide.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

ACGIH : US. ACGIH Threshold Limit Values
 NIOSH/GUIDE : US. NIOSH: Pocket Guide to Chemical Hazards
 OSHA_TRANS : US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
 Z1A : US. OSHA Table Z-1-A (29 CFR 1910.1000)

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx -



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Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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Date format : yyyy/mm/dd

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