

SAFETY DATA SHEET



56032-1

DATE ISSUED:



12/23/2020

A-A-56032 Type I, Type II & Type III

1. PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: Ink Marking, Epoxy Base. **Base Component**

Colors: Listed in Section 16

Recommended Use: Marking and stenciling.

COMPANY INFORMATION

MACH-DYNAMICS® Cage Code 1RRC4
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Susquehanna, PA 18847

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24 HR. EMERGENCY TELEPHONE NUMBER

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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GHS CLASSIFICATION:

Skin corrosion/irritation Category 3
Serious eye damage/eye irritation Category 2A
Specific target organ toxicity (single exposure) Category 2

GHS label elements, including precautionary statement



Pictogram

Signal Word **WARNING**

Hazard Statements

H313 May be harmful in contact with skin.

H316 Causes mild skin irritation.

H371 May cause damage to organs.

Precautionary Statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305 + 351 + 338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P311 IF exposed or concerned: Call a Poison Center or doctor/physician.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EC Number	Weight %	TSCA Inventory (04/2018) Active/Inactive
2-(2-Butoxyethoxy) ethanol	112-34-5	203-961-6	20-30	Active
Medium Aliphatic Naphtha	64742-88-7	265-191-7	0-3	Active

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Consult a physician.

SKIN: Flush skin with soap and water while removing contaminated clothing. Consult a physician. Do not reuse clothing or shoes until thoroughly cleaned.

INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

INHALATION: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Most important symptoms and effects

Symptoms

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use water fog, multipurpose foam, dry chemical, or CO2.

SPECIFIC HAZARDS IN CASE OF FIRE: Fight as volatile liquid fire.

HAZARDOUS COMBUSTION PRODUCTS: Carbon oxides, Nitrogen oxides, organic combustion products which may be toxic and/or irritating.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear chemical goggles, gloves, boots and protective clothing. Wear respirator if necessary. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition and heat.

Environmental precaution: Prevent additional discharge of material. Prevent material from entering sewers or water courses.

Methods and materials for containment and cleaning up: Absorb small spills with sand, filter-aid, vermiculite or other inert absorbent material, then place in a chemical waste container. For large spills, contain with sand or earth dikes. Dispose of waste in accordance with applicable government regulations

7. HANDLING AND STORAGE

SHELF LIFE: Recommended use within 12 months. Refrigeration will extend shelf life.

Precautions for safe handling: Avoid contact with eyes. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing and eye/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Unscrew all caps slowly. Do not unscrew entirely until all pressure has been completely released. Keep away from heat/sparks/open flames/hot surfaces. Emptied containers may retain residues. Precautions apply to emptied containers

Conditions for safe storage, including incompatibilities:

Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep storage temperature between 4-32° C (40-90° F). Incompatible with strong oxidizing agents, strong acids, strong bases, alkali metals and halogens.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE GUIDELINES:**

Chemical Name and CAS#	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-(2-butoxyethoxy) ethanol 112-34-5	NONE	NONE	NONE
Medium Aliphatic Naphtha 64742-88-7	TWA 100 PPM	TWA 500 PPM TWA 2900 mg/m ³	IDLH 2000 mg/m ³ TWA 350 PPM TWA 1800 mg/m ³

Appropriate engineering controls

Apply technical measures to comply with the occupational exposure limits. Local exhaust and mechanical ventilations are recommended to be used as engineering controls.

Individual protection measures, such as personal protective equipment:

Eye/Face protection: Safety glasses with side shields or chemical goggles must be worn.

Skin/Body protection: Wear protective gloves. Wear suitable protective clothing and footwear appropriate for the risk of exposure.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be

provided in accordance with current local regulations.

General hygiene: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	VALUES	REMARKS-METHODS
Physical state	Liquid	
Odor	Mild	
Odor threshold	Not determined	
pH	Not determined	
Melting point/freezing point	Not determined	
Boiling point/Boiling range	Not determined	
Flash point	> 116° C (> 240° F)	Tag Closed Cup
Evaporation rate	< 1	butyl acetate = 1
Flammability (solid gas)	Not determined	
Upper/lower flammability limits	Not determined	
Vapor pressure	Not determined	
Vapor density	> 1	air = 1
Specific gravity	1.35 – 1.48	water = 1
Water solubility	Slight	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition temperature	Not determined	
Decomposition temperature	Not determined	
Viscosity	30,000 – 40,000	cps
VOC content (%)	24 – 27%	
VOC content	2.7 – 3.3 lbs/gal	

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid: Keep out of reach of children. Keep away from heat, sparks and open flame. Keep away from contact with incompatible materials.

Incompatible materials: Strong oxidizing agents, strong acids, strong bases, alkali metals, halogens.

Hazardous decomposition products: Carbon oxides, nitrogen oxides, thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact: Causes eye irritation.

Skin contact: Causes skin irritation.

Inhalation: May cause respiratory irritation.

Ingestion: May be harmful if swallowed.

COMPONENT INFORMATION

Chemical Name and CAS#	Oral LD50	Dermal LD50	Inhalation LC50
2-(2-butoxyethoxy) ethanol 112-34-5	=2,410 mg/kg (Mouse)	=2,764 mg/kg (Rabbit)	> 2.1 mg/L (Rat) 4h
Medium Aliphatic Naphtha 64742-88-7	=5,000 mg/kg (Rat)	=3,000 mg/kg (Rabbit)	=5,500 mg/L (Rat) 4 h

Information on physical, chemical and toxicological effects:**Symptoms** Please see section 4 of this SDS for symptoms**Delayed and immediate effects as well as chronic effects from short and long-term exposure:****Carcinogenicity:** No ingredient is listed as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
None				

Legend**ACGIH (American Conference of Governmental Industrial Hygienists)***A3 - Animal Carcinogen***IARC (International Agency for Research on Cancer)***Group 1 - Carcinogenic to Humans**Group 3 IARC components are "not classifiable as human carcinogens"***NTP (National Toxicology Program)***Known - Known Carcinogen***OSHA (Occupational Safety and Health Administration of the US Department of Labor)***X - Present***Numerical measures of toxicity:** Not determined**12. ECOLOGICAL INFORMATION****Ecotoxicity:****Component Information**

Chemical Name and CAS#	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-(2-butoxyethoxy) ethanol 112-34-5	LC50 – Desmodesmus suspicatus - >100 mg/l – 24hrs	LC50 – Lepomis macrochirus – 1300 mg/l – 96h	LC50 – Pseudomonas putida – 1170 mg/l – 16hr	EC50 – Daphnia magna - >100 mg/l – 48hr
Medium Aliphatic Naphtha 64742-88-7	No Data	No Data	No Data	No Data

Persistence/Degradability: Not determined**Bioaccumulation:** Not determined**Mobility:** Not determined**Other Adverse Effects:** No data available**13. DISPOSAL INFORMATION****Disposal of Wastes:** Disposal should be in accordance with applicable regional, national and local laws and regulations.**Contaminated Packaging:** Dispose of as unused product in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**DOT**

UN number None
Proper shipping name Not Regulated
Hazard class None
Packing group None
ERG# 129

IATA

UN number None
Proper shipping name Not Regulated
Hazard class None
Packing group None

IMDG

UN number None
Proper shipping name Not Regulated
Hazard class None
Packing group None
Marine pollutant No

*** MACH-DYNAMICS verifies that the material was supplied and shipped in the proper packages in accordance with DOT and federal regulations that are applicable to the mode of transportation selected. The shipper must verify that the packaging supplied is acceptable to be re-shipped in per the federal regulations applicable to the mode of transportation for re-shipment. Regulations may change depending on mode of transportation selected.***

15. REGULATORY INFORMATION

TSCA STATUS: All Components listed.

OTHER REGULATORY:

Ingredient(s)	SARA 302	SARA 311/312	SARA 313	RECRA	CERCLA
2-(2-butoxyethoxy) ethanol	NO	A, C	YES	NO	NO
Medium Aliphatic Naphtha	NO	A, F	NO	NO	NO

SARA 311/312 Codes:

R = Reactive Hazard
 P = Pressure Hazard
 F = Fire Hazard
 A = Immediate/Acute
 C = Delayed/Chronic

California Proposition 65 Components: Chemicals known to the State of California to cause birth defects or other reproductive harm: None

16. OTHER INFORMATION

APPROVED BY: Mark Gingerella**TITLE:** President / QC Manager

HMIS RATING	
Health	2
Chronic Health Hazard	*
Flammability	1
Reactivity	0
Personal Protection	tbd

DISCLAIMER: To the best of MACH-DYNAMICS knowledge, all information, recommendations, and suggestions appearing herein concerning this product are taken from sources or based upon data believed to be reliable. Although reasonable care has been taken in the preparation of this information, MACH-DYNAMICS extends no warranties or guarantees, express or implied, makes no representations and assumes no responsibility as to the accuracy, reliability or completeness of the information presented. MACH-DYNAMICS assumes no liability arising out of the use of the product by others.

The conditions or methods of handling, storage, use and disposal of the product are beyond MACH-DYNAMICS control. The information provided herein may not be valid for this product if it is used in combination with any other materials or process. It is the user's responsibility to determine the suitability of the product, review the information provided herein, assess the safety and toxicity of the product and to comply with all applicable laws and regulations. For this and other reasons, MACH-DYNAMICS does not assume responsibility and expressly disclaims liability for any loss damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

Black: 17038, 27038, 37030, 37038	White: 17875, 17925, 27875, 37875, 37925	All Grey	Blue	Blue #15102	Blue #15123
Blue #15092	Blue #35190	Blue #33182	Blue #33392	Violet	Clear
Brown #30117	Brown #20059	Brown #30279	Green #34031	Green #14403	Green #34540
Orange #68271	Gold	Gold #17043	Brown #30257	Red #11140	Red #11105
Brown #20059	Brown #30257	Blue #35190	Blue #15123	Orange #12199	Green #34230
Orange #32246	Yellow #33538	Yellow #13655	Green #14193	Orange #22510	Red #21105
Orange #12250	Orange #12300	Yellow #13670			

Color Black #17038 and Color White #17875 are RoHS3 Directive 2015/863 compliant.

To the best of MACH-DYNAMICS knowledge; and thus based on the data provided by our raw material providers, the following colors of our A-A-56032 contain less than the permissible levels of Cadmium, Mercury, Lead, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers and Hexavalent Chromium as specified by EU Directive 2011/65/EC on the "Restriction of Hazardous Substances" (RoHS) unless otherwise noted. Physical test data for the homogeneous mixture has not been acquired.

The following A-A-56032 colors contain less than the volume of REACH Substances of Very High Concern list as of June, 2014 unless otherwise noted, along with the % by weight of the affected product if applicable.

A-A-56032 Black, all shades

A-A-56032 White, all shades.

SAFETY DATA SHEET



56032-2

DATE ISSUED:



12/23/2020

A-A-56032

Type I, Type II & Type III, Catalyst

1. PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: A-A-56032, Ink Marking, Epoxy Base. **Catalyst Component**

Colors: Listed in Section 16

Recommended Use: Marking and stenciling.

COMPANY INFORMATION

MACH-DYNAMICS® Cage Code 1RRC4

494 Main Street

Susquehanna, PA 18847

Phone: (570) 213-5603

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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GHS CLASSIFICATION:

Flammable Liquids	Category 2
Aspiration hazard	Category 1
Acute toxicity – Oral	Category 4
Acute toxicity – Inhalation	Category 3
Serious eye damage/eye irritation	Category 1
Skin corrosion/irritation	Category 1B
Skin sensitivity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2
Specific target organ toxicity (single exposure)	Category 3
Reproductive toxicity	Category 2
Chronic aquatic toxicity	Category 3

GHS label elements, including precautionary statement



Pictogram

Signal Word **DANGER**

Hazard Statements

H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H402 Harmful to aquatic life.

Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P235 Keep cool.

P240 Ground/bond container and receiving equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of water.

P303+P351+P361 IF ON SKIN (or hair): Rinse continuously with water for several minutes.

Remove/Take off immediately all contaminated clothing.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P310 Immediately call a POISON CENTER or doctor/physician.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P370 +P378 In case of fire: Use Water spray, CO₂, dry chemical, or alcohol resistant foam to Extinguish.

P403+233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EC Number	Weight %	TSCA Inventory (04/2018) Active/Inactive
1-Butanol	71-36-3	200-751-6	15 - 30	Active
2-(2-Butoxyethoxy) ethanol	112-34-5		5 - 20	Active

1-methoxy-2-propanol	107-98-2	203-539-1	5 - 15	Active
Toluene	108-88-3	203-625-9	5 - 15	Active
Diethylaminetriamine	111-40-0	203-865-4	2 - 5	Active
2,4,6-tris(dimethylaminomethyl) phenol	90-72-2		2 - 5	Active

4. FIRST AID MEASURES

Ingestion: If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Most important symptoms and effects

Symptoms

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use water fog, multipurpose foam, dry chemical, or CO₂.

SPECIFIC HAZARDS IN CASE OF FIRE: Fight as volatile liquid fire.

HAZARDOUS COMBUSTION PRODUCTS: Carbon oxides, Nitrogen oxides, ammonia.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear chemical goggles, gloves, boots and protective clothing. Wear respirator if necessary. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition and heat.

Environmental precaution: Prevent additional discharge of material. Prevent material from entering sewers or water courses.

Methods and materials for containment and cleaning up: Absorb small spills with sand, filter-aid, vermiculite or other inert absorbent material, then place in a chemical waste container. For large spills, contain with sand or earth dikes. Dispose of waste in accordance with applicable government regulations

7. HANDLING AND STORAGE

SHELF LIFE: Recommended use within 12 months. Refrigeration will extend shelf life.

Precautions for safe handling: Avoid contact with eyes. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing and eye/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Unscrew all caps slowly. Do not unscrew entirely until all pressure has been completely released. Keep away from heat/sparks/open flames/hot surfaces. Emptied containers may retain residues. Precautions apply to emptied containers

Conditions for safe storage, including incompatibilities:

Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep storage temperature between 4-32° C (40-90° F). Incompatible with strong oxidizing agents, strong acids, strong bases, alkali metals and halogens.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Chemical Name and CAS#	ACGIH TLV	OSHA PEL	NIOSH IDLH
1-Butanol CAS 71-36-3	TWA 20 PPM	TWA 100 PPM TWA 300 mg/m ³ (skin)	IDLH 1400 ppm TWA 50 PPM TWA 150 mg/m ³ (skin)
2-(2-butoxyethoxy) ethanol 112-34-5	None	None	None
1-methoxy-2-propanol CAS 107-98-2	TWA: 100 ppm STEL: 150 ppm	TWA 100 PPM TWA 360 mg/m ³ STEL 150 PPM STEL 540 mg/m ³	TWA 100 PPM TWA 360 mg/m ³ STEL 150 PPM STEL 540 mg/m ³
Toluene CAS 108-88-3	TWA: 20 ppm	TWA 100 PPM TWA 375 mg/m ³ STEL 150 PPM STEL 560 mg/m ³	TWA 100 PPM TWA 375 mg/m ³ STEL 150 PPM STEL 560 mg/m ³
Diethylaminetriamine CAS 111-40-0	Not Established	Not Established	TWA 1 PPM TWA 4 mg/m ³ (skin)
2,4,6-tris(dimethylaminomethyl) phenol CAS 90-72-2	Not Established	Not Established	Not Established

Appropriate engineering controls

Apply technical measures to comply with the occupational exposure limits. Local exhaust and mechanical ventilations are recommended to be used as engineering controls.

Individual protection measures, such as personal protective equipment:

Eye/Face protection: Safety glasses with side shields or chemical goggles must be worn.

Skin/Body protection: Wear protective gloves. Wear suitable protective clothing and footwear appropriate for the risk of exposure.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

General hygiene: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	VALUES	REMARKS-METHODS
Physical state	Liquid	
Odor	Solvent	
Odor threshold	Not determined	
pH	Not determined	
Melting point/freezing point	Not determined	
Boiling point/Boiling range	Not determined	
Flash point	40.6° C (105° F)	Tag Closed Cup
Evaporation rate	< 1	butyl acetate = 1
Flammability (solid gas)	Not determined	
Upper/lower flammability limits	Not determined	
Vapor pressure	Not determined	
Vapor density	> 1	air = 1
Specific gravity	1.0 – 1.4	water = 1
Water solubility	Appreciable (>10 %)	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition temperature	Not determined	
Decomposition temperature	Not determined	
Viscosity	15,000 – 25,000	cps
VOC content (%)	30 – 40%	
VOC content	3.2 – 3.5 lbs/gal	

10. STABILITY AND REACTIVITY

Reactivity: No data

Chemical Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid: Keep out of reach of children. Keep away from heat, sparks and open flame. Keep away from contact with incompatible materials.

Incompatible materials: Strong oxidizing agents, strong acids, strong bases, alkali metals.

Hazardous decomposition products: Ammonia. carbon oxides, nitrogen oxides, thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact: Causes serious eye damage.

Skin contact: Corrosive. Can cause chemical burns.

Inhalation: Causes respiratory tract irritation. May cause drowsiness, dizziness, headache and nausea.

Ingestion: May be harmful if swallowed.

COMPONENT INFORMATION

Chemical Name and CAS#	Oral LD50	Dermal LD50	Inhalation LC50
1-Butanol CAS 71-36-3	= 790 mg/kg (Rat)	= 3400 mg/kg (Rabbit)	= 8000 mg/L (Rat) 4 h
2-(2-butoxyethoxy) ethanol 112-34-5	=2,410 mg/kg (Mouse)	= 2,764 mg/kg (Rabbit)	> 2.1 mg/L (Rat) 4h
1-methoxy-2-propanol CAS 107-98-2	= 11,700 mg/kg (Mouse)	= 13,000 mg/kg (Rabbit)	= 10,000 mg/L (Rat) 5 h
Toluene CAS 108-88-3	= 5580 mg/kg (Rat)	= 12,196 mg/kg (Rabbit)	= 12,500 – 28,800 mg/L (Rat) 4 h
Diethylaminetriamine CAS 111-40-0	= 819 – 1430 mg/kg (Rat)	= 950 – 1240 mg/kg (Rabbit)	= 1.8 mg/L (Rat) 4 h
2,4,6- tris(dimethylaminomethyl) phenol CAS 90-72-2	= 2,169 mg/kg (Rat)	> 5,000 mg/kg (estimate)	No data available

Information on physical, chemical and toxicological effects:

Symptoms Please see section 4 of this SDS for symptoms

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Carcinogenicity: No ingredient is listed as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
None				

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity: Not determined

12. ECOLOGICAL INFORMATION

**Ecotoxicity:
Component Information**

Chemical Name and CAS#	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1-Butanol CAS 71-36-3	No Data	LC50 – Pimephales promelas – 1,376 mg/L – 96h	No Data	EC50 – Daphnia magna – 1,328 mg/L – 48h
2-(2-butoxyethoxy) ethanol 112-34-5	LC50 – Desmodesmus suspicatus - >100 mg/l – 24hrs	LC50 – Lepomis macrochirus – 1,300 mg/l – 96h	LC50 – Pseudomonas putida – 1,170 mg/l – 16hr	EC50 – Daphnia magna - >100 mg/l – 48hr
1-methoxy-2-propanol CAS 107-98-2	No Data	LC50 - Pimephales promelas – 20,800 mg/L – 96h	No Data	EC50 - Daphnia magna – 23,300 mg/L – 48h
Toluene CAS 108-88-3	NOEC – Skeletonema costatum – 10 mg/L – 72h	LC50 – Oncorhynchus mykiss – 7.63 mg/L – 96h	No Data	EC50 – Ceriodaphnia dubia – 3.78 mg/L – 48h
Diethylaminetriamine CAS 111-40-0	EC50 – Scenedesmus subspicatus – 592 mg/L – 96h	LC50 – Leuciscus idus – 430 mg/L – 96h	No Data	EC50 – Daphnia magna – 17 mg/L – 48h
2,4,6-tris(dimethylaminomethyl) phenol CAS 90-72-2	ErC50 – Desmodesmus subspicatus – 84 mg/L – 72h	LC50 – Cyprinus carpio – 175 mg/L – 96h	No Data	LC50 – daphnia – 84 mg/L – 96h

Persistence/Degradability: Not determined

Bioaccumulation: Not determined

Mobility: Not determined

Other Adverse Effects: No data available

13. DISPOSAL INFORMATION
Disposal of Wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging: Dispose of as unused product in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION
DOT

UN number 1210
Proper shipping name Printing Ink
Hazard class 3
Packing group III
ERG# 129

IATA

UN number 1210
Proper shipping name Printing Ink
Hazard class 3
Packing group III

IMDG

UN number 1210

Proper shipping name Printing Ink
Hazard class 3
Packing group III
Marine pollutant No

*** MACH-DYNAMICS verifies that the material was supplied and shipped in the proper packages in accordance with DOT and federal regulations that are applicable to the mode of transportation selected. The shipper must verify that the packaging supplied is acceptable to be re-shipped in per the federal regulations applicable to the mode of transportation for re-shipment. Regulations may change depending on mode of transportation selected.***

15. REGULATORY INFORMATION


TSCA STATUS: All Components listed.

OTHER REGULATORY:

Ingredient(s)	SARA 302	SARA 311/312	SARA 313	RECRA	CERCLA
1-Butanol	NO	F, A, C	YES	U031	NO
2-(2-butoxyethoxy) ethanol	NO	A,C	YES	NO	NO
1-methoxy-2-propanol	NO	A, F	NO	NO	NO
Toluene	NO	F, A, C	YES	U220	YES
Diethylaminetriamine	NO	F, A	NO	NO	NO
2,4,6-tris(dimethylaminomethyl) phenol	NO	A	NO	NO	NO

SARA 311/312 Codes:

R = Reactive Hazard
 P = Pressure Hazard
 F = Fire Hazard
 A = Immediate/Acute
 C = Delayed/Chronic

 **WARNING:** This product can expose you to chemicals including Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Toluene CAS# 108-88-3

16. OTHER INFORMATION

APPROVED BY: Mark Gingerella

TITLE: President / QC Manager

HMIS RATING	
Health	3
Chronic Health Hazard	*
Flammability	3
Reactivity	1
Personal Protection	TBD

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The conditions or methods of handling, storage, use and disposal of the product are beyond MACH-DYNAMICS control. The information provided herein may not be valid for this product if it is used in combination with any other materials or process. It is the user's responsibility to determine the suitability of the product, review the information provided herein, assess the safety and toxicity of the product and to comply with all applicable laws and regulations. For this and other reasons, MACH-DYNAMICS does not assume responsibility and expressly disclaims liability for any loss damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

Black: 17038, 27038, 37030, 37038	White: 17875, 17925, 27875, 37875, 37925	All Grey	Blue	Blue #15102	Blue #15123
Blue #15092	Blue #35190	Blue #33182	Blue #33392	Violet	Clear
Brown #30117	Brown #20059	Brown #30279	Green #34031	Green #14403	Green #34540
Orange #68271	Gold	Gold #17043	Brown #30257	Red #11140	Red #11105
Brown #20059	Brown #30257	Blue #35190	Blue #15123	Orange #12199	Green #34230
Orange #32246	Yellow #33538	Yellow #13655	Green #14193	Orange #22510	Red #21105
Orange #12250	Orange #12300	Yellow #13670			

Color Black #17038 and Color White #17875 are RoHS3 Directive 2015/863 compliant.