

SAFETY DATA SHEET

Section 1 - Chemical Product and Company Information

Product Name: 1201A Red Insulation Enamel - Aerosol Product Code: 1201A

Trade Name: Glyptal

Manufactured by:

IN CASE OF EMERGENCY:

GLYPTAL, INC.
305 Eastern Ave.
Chelsea, MA 02150
Telephone (617) 884-6918

CHEMTREC 1-800-424-9300

Product Use: Coatings

Not recommended for: Nonindustrial Use

Section 2 - Hazards Communication

NFPA Ratings, risk phrases, and suggested WHMIS Hazard Categories:

GHS Ratings:

Flammable aerosol	1	Flammable aerosol class 1
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: \geq 2.3 < 4.0 or persistent inflammation
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Reproductive toxin	2	Human or animal evidence possibly with other information
Organ toxin single exposure	3	Transient target organ effects- Narcotic effects- Respiratory tract irritation
Aspiration hazard	1	Aspiration Toxicity Category 1: Known (regarded)- human evidence - hydrocarbons with kinematic viscosity \leq 20.5 mm ² /s at 40° C.

GHS Hazards

H222	Extremely flammable aerosol
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child

GHS Precautions

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
P211	Do not spray on an open flame or other ignition source
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash skin thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P331	Do NOT induce vomiting
P362	Take off contaminated clothing and wash before reuse
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell

P304+P340	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
P332+P313	If skin irritation occurs: Get medical advice/attention
P337+P313	If eye irritation persists, get medical advice/attention
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P403+P233	Store in a well ventilated place. Keep container tightly closed
P403+P235	Store in a well ventilated place. Keep cool
P501	Dispose of contents/container to an approved waste disposal plant

Signal Word: Danger



Section 3 - Composition / Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Acetone	67-64-1	30.00% - 40.00%
Propane	74-98-6	10.00% - 20.00%
Methyl Ethyl Ketone	78-93-3	5.00% - 10.00%
Toluene	108-88-3	5.00% - 10.00%
Methyl Propyl Ketone	107-87-9	1.00% - 5.00%
Methyl Normal Amyl Ketone	110-43-0	1.00% - 5.00%
n-Butanol	71-36-3	1.00% - 5.00%

Section 4 - First Aid Measures

INHALATION - Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room, or physician as further medical treatment may be necessary. Administer oxygen if a qualified operator is available.

EYE CONTACT - In case of eye contact, flush the eyes with water for fifteen (15) minutes. If contact lenses are worn, quickly remove them, then flush the eyes with water. If irritation persists, contact a poison control center, emergency room, or physician as further medical treatment may be necessary.

SKIN CONTACT - In case of skin contact, remove contaminated clothing. Flush the skin with large amounts of water, then wash the skin with soap and water. If symptoms persist, contact a poison control center, emergency room, or physician as further medical treatment may be necessary.

INGESTION - If material is ingested, seek immediate medical attention. Do not induce vomiting. If vomiting occurs spontaneously, keep the head below the hips to prevent aspiration of liquid into the lungs. Contact a poison control center, emergency room, or physician as further medical treatment will be necessary.

Section 5 - Fire Fighting Measures

Flash Point: 4 C (39 F)

LEL: 1.00

UEL: 13.00

EXTINGUISHING MEDIA: Use carbon dioxide (CO₂), "alcohol" foam, dry chemical

UNUSUAL FIRE OR EXPLOSION HAZARDS: The product vapor is heavier than air and may travel a considerable distance to a source of ignition and flashback. Closed containers may explode or burst when exposed to extreme heat. May produce hazardous decomposition products when exposed to extreme heat.

HAZARDOUS COMBUSTION PRODUCTS: See section 10 for a list of hazardous decomposition products for this mixture.

FIRE FIGHTING: Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure.

FIRE FIGHTING EQUIPMENT: Firemen and emergency responders: wear full turnout gear or Level A equipment, including positive-pressure, self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

SPILL AND LEAK PROCEDURES: Spill supervisor - Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

SMALL SPILLS: Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes.

Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

LARGE SPILLS: Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter, sewers, watercourses, or extensive land areas.

Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes.

Label the waste container. Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 7 - Handling and Storage

HANDLING PRECAUTIONS: Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 50 to 85 F (10 to 30 C).

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120 F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Keep out of the reach of children.

STORAGE: Prevent from freezing. Do not store above 95 F (35 C).

Store only in original containers. Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120 F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Keep out of the reach of children.

Section 8 - Exposure Controls / Personal Protection			
Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Acetone 67-64-1	PEL 1000 ppm - TWA	TLV 500 ppm - TWA STEL 750 ppm	Not Established
Propane 74-98-6	1000 ppm PEL	1000 ppm TWA	Not Established
Methyl Ethyl Ketone 78-93-3	PEL 200 ppm - TWA VPEL 200 ppm - TWA VPEL 300 ppm - STEL	TLV 200 ppm - TWA TLV 300 ppm - STEL	Not Established
Toluene 108-88-3	100 ppm - TWA (Z-1) 150 ppm - STEL (Z-1) 200 ppm TWA (Z-2)	TLV 20 ppm - TWA	Not Established
Methyl Propyl Ketone 107-87-9	PEL 200 ppm - TWA VPEL 200 ppm - TWA VPEL 250 ppm - STEL	TLV 200 ppm - TWA TLV 250 ppm - STEL	Not Established
Methyl Normal Amyl Ketone 110-43-0	PEL 100 ppm - TWA VPEL 100 ppm - TWA	TLV 50 ppm - TWA TLV 233 mg/m3 - TWA	Not Established
n-Butanol 71-36-3	PEL 100 ppm - TWA VPEL 50 ppm - Ceiling (skin)	TLV 20 ppm - TWA	Not Established

ENGINEERING: Provide general dilution of local exhaust ventilation in volume and pattern to keep concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the workplace. Use explosion-proof equipment and good manufacturing practice.

VENTILATION: Use only with adequate ventilation, i.e., ventilation in compliance with occupational exposure limits. Refer to OSHA standards 1910.94, 1910.107, 1910.108.

PERSONAL PROTECTIVE EQUIPMENT

EYES:

Wear splash goggles. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

PROTECTIVE GLOVES:

Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear. If necessary, wear a chemical-resistant, butyl-rubber apron and other protective clothing, as deemed appropriate, to avoid skin contact with material.

RESPIRATORY PROTECTION:

Respiratory protection may not be needed if the local exhaust is sufficient to maintain levels of hazardous ingredients below occupational exposure limits. Where ventilation is inadequate, use a NIOSH/MSHA-approved, air-purifying respirator equipped with the appropriate chemical cartridges or positive-pressure, air-supplied respirator. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used.

CONTAMINATED EQUIPMENT: Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 9 - Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstances:

Appearance Red Liquid	Odor Solvent odor
Physical State Liquid	Vapor Density Heavier than air
Vapor Density 2.08	Vapor Pressure 58.4 psi
Evaporation Rate Faster than ether	Boiling Range -42 to 149 °C
Specific Gravity (SG) 0.945	Lbs VOC/Gallon Solids 14.6
Lbs VOC/Gallon Less Water and Exempt Solvent 3.14	

Section 10 - Stability and Reactivity

Stability:

STABLE

Components of this mixture are incompatible with the following materials:

Strong oxidizing agents
Copper, copper alloys, strong alkalis, strong oxidizing agents
Alkali metals, Aluminum, Halogens, Lead, Strong mineral acids, Strong oxidizing agents
Strong oxidizing agents, acids, alkali/base/caustic solutions, and reducing agents

This mixture is likely to exhibit the following combustion products:

Carbon Dioxide, Carbon Monoxide
Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Component Toxicity

67-64-1	Acetone Oral LD50: 6 g/kg (Rat) Dermal LD50: 7 g/kg (Guinea Pig) Inhalation LC50: 50 g/m3 (Rat)
78-93-3	Methyl Ethyl Ketone Oral LD50: 2,737 mg/kg (Rat) Dermal LD50: 6 g/kg (Rabbit) Inhalation LC50: 320 g/m3 (Mouse)

107-87-9	Methyl Propyl Ketone Oral LD50: 1,600 mg/kg (Rat) Inhalation LC50: 26 mg/L (Rat)
110-43-0	Methyl Normal Amyl Ketone Oral LD50: 1,600 mg/kg (Rat) Dermal LD50: 5,000 mg/kg (Rat) Inhalation LC50: 17 mg/L (Rat)
71-36-3	n-Butanol Oral LD50: 790 mg/kg (Rat) Dermal LD50: 3,400 mg/kg (Rabbit)

Routes of Entry:

Inhalation Skin Contact Eye Contact

Exposure to this material may affect the following organs:

Blood Eyes Kidneys Liver Lungs Central Nervous System Skin

Effects of Overexposure

107-87-9

Methyl Propyl Ketone

Eye Contact May cause mild irritation. Symptoms include stinging, tearing, and redness.

Ingestion Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits.

Skin Contact May cause mild skin irritation. Symptoms may include redness and burning of skin. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

108-88-3

Toluene

Signs of symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, muscle weakness, loss of coordination, confusion, irregular heartbeat, coma, and death.

Eye Contact May cause mild irritation. Symptoms include stinging, tearing, and redness.

Ingestion Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits.

Skin Contact May cause mild skin irritation. Symptoms may include redness and burning of skin. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use .

110-43-0

MAK

Signs of symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness).

Eye Contact May cause mild irritation. Symptoms include stinging tearing, and redness.

Inhalation Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing larger amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommend exposure limits.

Ingestion Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Skin Contact May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use .

67-64-1

Acetone

Signs of symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), and other central nervous system effects, high blood sugar, coma .

Eye Contact May cause mild irritation. Symptoms include stinging, tearing, and redness.

Ingestion Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits.

Skin Contact May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use .

71-36-3

n-Butanol

Signs of symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), cough, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), blurred vision.

Eye Contact	Can cause severe eye irritation. Symptoms include stinging tearing, and redness, and swelling of eyes. Can injure eye tissue.
Ingestion	Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.
Inhalation	Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits.
Skin Contact	Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, burns, and other skin damage.. Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

74-98-6

Propane

Can cause rapid suffocation if in high enough concentrations. Extremely flammable liquified gas. Vapors may spread long distances and ignite.

Eye Contact	Contact with liquid may cause cold burns/frost bite
Ingestion	Ingestion in not considered a potential route of exposure.
Inhalation	In high concentrations, may cause asphyxiation. Symptoms may include loss of mobility/consciousness. victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves.
Skin Contact	Contact with liquid may cause cold burns/frost bite.

78-93-3

Methyl Ethyl Ketone

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use. Methyl Ethyl Ketone (78-93-3)

Eye Contact	May cause mild irritation. Symptoms include stinging, tearing, and redness. Methyl Ethyl Ketone (78-93-3)
Ingestion	Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury. Methyl Ethyl Ketone (78-93-3)
Inhalation	Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits. Methyl Ethyl Ketone (78-93-3)
Skin Contact	May cause mild skin irritation. Symptoms may include redness and burning of skin. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use. Methyl Ethyl Ketone (78-93-3)

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing) . See Section 15 for carcinogenicity assessment.

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
None			N/A

Section 12 - Ecological Information

Ecological information: No Information available

Component Ecotoxicity

Acetone

12.1 Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 5,540 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 8,800 mg/l - 48 h

Toxicity to algae Remarks: no data available

12.2 Persistence and degradability

Biodegradability Result: 91 % - Readily biodegradable. (OECD Test Guideline 301B)

12.3 Bioaccumulative potential

Does not bioaccumulate.

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

Propane

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

12.1 Toxicity

Toxicity to fish mortality NOEC - Cyprinodon variegatus (sheepshead minnow)- 400 mg/l -96 h
LC50 - Pimephales promelas (fathead minnow) - 3,130 - 3,320 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - > 520 mg/l - 48 h

EC50 - Daphnia magna (Water flea) - 7,060 mg/l - 24 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

Toluene

12.1 Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 7.63 mg/l - 96 h

NOEC - Pimephales promelas (fathead minnow) - 5.44 mg/l - 7 d

Toxicity to daphnia and 24 h EC50 - Daphnia magna (Water flea) - 8.00 mg/l -

other aquatic invertebrates
Immobilization EC50 - Daphnia magna (Water flea) - 6 mg/l - 48 h

Toxicity to algae 245.00 mg/l - 24 h EC50 - Chlorella vulgaris (Fresh water algae) -

EC50 - Pseudokirchneriella subcapitata (green algae) - 10.00 mg/l - 24 h

12.2 Persistence and degradability

Biodegradability Result: - Readily biodegradable

12.3 Bioaccumulative potential

Bioaccumulation Leuciscus idus (Golden orfe) - 3 d - 0.05 mg/l

Bioconcentration factor (BCF): 90

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

Methyl Propyl Ketone

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1,240 mg/l - 96 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

Methyl Normal Amyl Ketone

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) -
126 - 137 mg/l - 96 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - > 90.1 mg/l -
48 h
other aquatic
invertebrates
semi-static test

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (algae) -
98.2 mg/l - 72 h
(OECD Test Guideline 201)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d
Result: 69 % - Readily biodegradable
(OECD Test Guideline 310)
Ratio BOD/ThBOD 1.77 %

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not
required/not conducted

12.6 Other adverse effects

No data available

n-Butanol

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1,840 mg/l
- 96 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 1,983 mg/l - 48 h
other aquatic
invertebrates

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 24 h
- 921 mg/l
Bioconcentration factor (BCF): 0.38

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not
required/not conducted

12.6 Other adverse effects

No data available

Section 13 - Disposal Considerations

As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all the requirements which affect you. Dispose of the hazardous waste at a properly licensed and permitted disposal site or facility. Ensure conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).

Section 14 - Transport Information

This material is classified for transport as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
IMDG	Aerosols	1950		2.1
DOT	Aerosols	1950		2.1
	May be classed as Consumer Commodity, ORM-D, Limited Quantity			

Section 15 - Regulatory Information

Additional regulatory listings, where applicable.

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

108-88-3 Toluene 5 to 10 %

Carcinogenicity:

IARC: Group 2B: Possibly carcinogenic to humans

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.

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

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.

- None

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.

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

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

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.

n-Butanol 71-36-3

Methyl Normal Amyl Ketone 110-43-0

Methyl Propyl Ketone 107-87-9

Toluene 108-88-3

Methyl Ethyl Ketone 78-93-3

Propane 74-98-6

Acetone 67-64-1

Commonwealth of Massachusetts "Right to Know": This product contains the following toxic or hazardous substances which appear on the Massachusetts Substance List:

- n-Butanol 1 to 5 %
- Methyl Propyl Ketone 1 to 5 %
- Toluene 5 to 10 %
- Methyl Ethyl Ketone 5 to 10 %
- Propane 10 to 20 %
- Acetone 30 to 40 %

New Jersey Worker and Community Right To Know Hazardous Substance List: The following substances appear on the New Jersey Right To Know Hazardous Substance List.

- n-Butanol 1 to 5 %
- Methyl Normal Amyl Ketone 1 to 5 %
- Methyl Propyl Ketone 1 to 5 %
- Toluene 5 to 10 %
- Methyl Ethyl Ketone 5 to 10 %
- Propane 10 to 20 %
- Acetone 30 to 40 %

Commonwealth of Pennsylvania Worker and Community Right-To-Know Act: This product contains the following chemicals which appear on the Pennsylvania Hazardous Substance List:

- 71-36-3
- 110-43-0
- 107-87-9
- 108-88-3
- 78-93-3
- 74-98-6
- 67-64-1

WHMIS Classification B2 Flammable Liquid / D2A Very Toxic Material
- None

WHMIS Classification B2 Flammable Liquid / D2B Toxic Material

Country

Regulation

All Components Listed



EU Risk Phrases

Safety Phrase

Toxic Substances Control Act (TSCA): All chemicals except those listed below appear in the Toxic Substances Control Act Chemical Substance Inventory:
- None

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act, and Title 40 of the Code of Federal Regulations, part 372.

- 78-93-3 Methyl Ethyl Ketone 5 - 10%
- 71-36-3 n-Butanol 1.0 - 5%
- 108-88-3 Toluene 5 - 10%

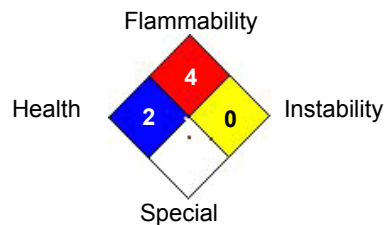
Section 16 - Other Information

Hazardous Material Information System (HMIS)

HEALTH	<input type="text" value="2"/>
FLAMMABILITY	<input type="text" value="4"/>
PHYSICAL HAZARD	<input type="text" value="0"/>
PERSONAL PROTECTION	<input type="text" value=""/>

HMIS & NFPA Hazard Rating Legend
 * = Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH

National Fire Protection Association (NFPA)



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Reviewer Revision

Date Prepared: 9/20/2018