G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME ----------> Dibasic Ester

PRODUCT NUMBER(S)----------> 134300

TRADE NAMES AND SYNONYMS --> Dibasic Ester Mixture, DBE

1.2 RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

RECOMMENDED USE: It is widely used in the paints and coatings, inks, foundry chemicals and so on. Also it is one kind of environmental protection cleanser and paint remover.

USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: G.J. CHEMICAL CO., INC.
Address: 40 VERONICA AVENUE
SOMERSET, NJ 08873
Telephone: 1-973-589-1450
Fax: 1-973-589-3072

1.4 Emergency Telephone Number

Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 3), H402

2.2 GHS Label elements, including precautionary statements

Pictogram: None

Signal Word: WARNING

Hazard statement(s)
H319 Causes serious eye irritation.
H402 Harmful to aquatic life.

Precautionary statement(s)
Prevention:
P273 Avoid release to the environment.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. INGREDIENTS

3.1 SUBSTANCE: Not applicable.
3.2 MIXTURE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Dimethyl succinate	106-65-0 EC-No. 203-419-9 Reg.-No. 01-2119486681-29-XXXX	15-25	Flammable Liquid (Category 4), H227 Eye irritation (Category 2A), H319
Dimethyl glutarate	1119-40-0 EC-No.214-277-2 Reg.-No. 01-2119900156-49-XXXX	55-65	Not a hazardous substance or mixture.
Dimethyl adipate	CAS No.: 627-93-0 EC.No.211-020-6 Reg.-No. 01-2119911093-50-XXXX	10-25	Acute aquatic toxicity (Category 3), H402

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

INHALATION: DIBASIC ESTER
***FIRST AID*- Remove from exposure area to fresh air**

immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

SKIN CONTACT: DIBASIC ESTER

***FIRST AID-* Remove contaminated clothing and shoes immediately. Wash affected area with waterless cleaner first then soap and large amounts or water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.**

EYE CONTACT: DIBASIC ESTER

***FIRST AID-* Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Consult a physician if irritation persists.**

INGESTION: DIBASIC ESTER

***FIRST AID-* Do not induce vomiting. Never give anything by mouth to an unconscious person. Have patient drink several glasses of water. Consult a physician or poison control center, treat symptomatically.**

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Eye: Eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.

Skin: Skin contact may cause skin irritation with discomfort or rash.

Inhalation: Inhalation may cause irritation of the upper respiratory passages, with coughing and discomfort. Some individuals who have been overexposed by inhalation or skin contact experienced blurry vision.

Ingestion: Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea

Medical Conditions Aggravated by Exposure: The mechanism of blurred vision in humans is unknown. Based on observed effects from animal studies, we believe that some symptoms of pre-existing eye disease could be aggravated by overexposure to this material.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
Notes to Physicians:

Activated charcoal mixture may be beneficial. Suspend 50 g activated charcoal in 400 ml water and mix well .Administer 5 ml/kg or 350ml for an average adult.

5. FIRE FIGHTING MEASURES

FLASH POINT: 100°C (212°F) TCC **LEL %: 0.9%**
AUTO-IGNITION TEMP: 370°C (698°F) **UEL %: 8.0%**
UNIFORM FIRE CODE: Combustible Liquid: IIIB

5.1 EXTINGUISHING MEDIA:

Suitable extinguishing media: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->
Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Actual auto-ignition temperature (AIT) can be affected by the concentration of vapors and oxygen, vapor/air contact time, pressure, volume, catalytic impurities, etc. Process conditions should be analyzed to determine if the AIT's may be higher or lower. Above the Flash Point explosive vapor/air mixtures may be formed.

CONDITIONS OF FLAMMABILITY: Flammable in the presence of a source of ignition when the temperature is above the flash point.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS:

Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition when exposed to extreme heat. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Cool containers with flooding amounts of water from as far a distance as possible. Wear NIOSH/MSHA approved self-contained breathing apparatus (SCBA) for confined spaces. Use full fire-fighting protective

clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:
Keep out of water sources, drains and sewers. Do not flush into surface water or sanitary sewer system

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:
Methods for cleanup and containment:
Keep unnecessary people away; Isolate hazard area and deny entry.
Use explosion proof equipment. Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. Shut off valves, contain spill, for small spills take up with sand or other absorbent material and place into containers for later disposal. For large spills dike far ahead of spill for later disposal. No smoking, flames, or flares in spill area! Use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent.
Methods for disposal:
Remove contaminated soil to remove contaminated trace residues. Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace reside. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: This material presents a fire hazard. Invisible vapor can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not take internally. Avoid breathing vapors in top of shipping container. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and

drainage systems. Use non-sparking tools to open or close containers.

Advice on general occupational hygiene:
Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep containers closed when not in use.
Storage class (TRGS 510): Combustible liquids

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING OF THIS SUBSTANCE. FOR ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE ENVIRONMENTAL PROTECTION AGENCY.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Dimethyl succinate	106-65-0 EC-No. 203-419-9 Reg.-No. 01-2119486681-29-XXXX	15-25	N.E.
Dimethyl glutarate	1119-40-0 EC-No.214-277-2 Reg.-No. 01-2119900156-49-XXXX	55-65	N.E.

Dimethyl adipate 627-93-0 EC.No.211-020-6 Reg.-No. 01-2119911093-50-XXXX	10-25	N.E.

Key: (PEL) = Permissible Exposure Limit OSHA
(TLV) = Threshold Limit Value OSHA & ACGIH
(STEL) = Short Term Exposure Limit ACGIH
(WEEL) = USA. Workplace Environmental Exposure Levels
(TWA) = Time Weighted Average
CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health
N.E. =None Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator. A NIOSH/MHSA approved air purifying respirator with an organic vapor cartridge or canister may be permissible. For emergencies, confined entry or unknown vapor concentrations use a NIOSH/MHSA approved full-face piece positive-pressure air supplied respirator (SCBA).
For DBE the AEL is 1.5ppm 3.8hr. This TWA is Dupont's Acceptable Exposure Limit.

BODY CLOTHING:
Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION:
Employee must wear appropriate protective gloves to prevent contact with this substance.

Full contact:
Material: butyl-rubber
Thickness: 0,7 mm
Break through time: > 480 min
Splash contact:
Material: polychloroprene
Thickness: 0,65 mm
Break through time: > 30 min

EYE/FACE PROTECTION: Use safety eyewear with splash guards or face shield. Emergency shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Dibasic Ester

APPEARANCE:	**Clear liquid**
COLOR:	**Colorless**
ODOR:	**Sweet odor**
ODOR THRESHOLD:	**0.1ppm**
pH:	**No data available**
MOLECULAR WEIGHT:	**146.1 amu**
MELTING POINT:	**20°F (-4°C)**
BOILING RANGE:	**196-225°C (385 - 437°F)**
SPECIFIC GRAVITY:	**1.092@25°C**
DENSITY (25°C):	**1.092 g/ml @20°C**
VAPOR PRESSURE:	**0.2 mmHg@20°C (68.0°F)**
VAPOR DENSITY:	**No data available**
WATER SOLUBILITY:	**5.3%@20°C**
PARTITION COEFFICIENT N-OCTANOL/WATER	**No data available**
FLASH POINT:	**100°C (212°F) - closed cup**
EVAPORATION RATE (BUTYL ACETATE=1):	**0.1**
UPPER FLAMMABILITY LIMIT:	**8.0% (V)**
LOWER FLAMMABILITY LIMIT:	**0.9% (V)**
AUTO INGNITION TEMPERATURE:	**370°C (698°F)**
DECOMPOSITION TEMPERATURE:	**No data available**
VISCOSITY:	**No data available**
EXPLOSIVE PROPERTIES:	**No data available**
OXIDIZING PROPERTIES:	**No data available**

OTHER INFORMATION: **No data available**

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: Forms explosive mixtures with air on intense heating.

10.2 CHEMICAL STABILITY: Unstable ( ) Stable (X)
The product is chemically stable under standard ambient conditions (room temperature)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available.

HAZARDOUS POLYMERIZATION: May occur ( ) Will not occur (X)

10.4 CONDITIONS TO AVOID: --> Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. Extremes of temperature and direct sunlight.

10.5 INCOMPATIBLE MATERIALS --> Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Different plastics.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS --> Toxic gases and vapors may be released if involved in a fire.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.
Skin> Skin contact may cause skin irritation with discomfort or rash.

Inhalation> Inhalation may cause irritation of the upper respiratory passages, with coughing and discomfort. Some individuals who have been overexposed by inhalation or skin contact experienced blurry vision.

Ingestion> Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea

Medical Conditions Aggravated by Exposure> The mechanism of blurred vision in humans is unknown. Based on observed effects from animal studies, we believe that some symptoms of pre-existing eye disease could be aggravated by overexposure to this material.

ACUTE TOXICITY:

The effects of overexposure shown in Section III are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50 (Rabbit)	Inhalation LC50
Dibasic Ester	>5000 mg/kg	>2000mg/kg	11mg/L/4hr

SKIN CORROSION/IRRITATION: Rabbit Result: No irritation.
(OECD Test Guideline 404)

SERIOUS EYE DAMAGE/EYE IRRITATION: Rabbit Result: Eye irritation
(OECD Test Guideline 405)

RESPIRATORY OR SKIN SENSITIZATION:
Respiratory: No data available.
Skin: Patch test Human Result: negative.

MUTAGENIC EFFECTS: The mixture does not produce genetic damage in animals, or in bacterial cell cultures, but it was positive in one study with cultured mammalian cells.

CARCINOGEN STATUS:
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 potential carcinogen by ACGIH.
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.
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.

REPRODUCTIVE TOXICITY: Animal testing indicates that this mixture does not have developmental, or reproductive effects.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: No data available

11.2 ADDITIONAL INFORMATION: This mixture is a mild to severe skin irritant and a moderate eye irritant, but is not a skin sensitizer in animals. Toxic effects described in animals from exposure by inhalation include upper respiratory tract irritation. A single 4-four exposure to 60 ppm caused transient corneal opacity and transient increases in the distance from the cornea to the anterior surface of the lens of the eye. Toxicity described in animals from repeated exposure by inhalation include decreased weight gain, absolute and relative liver weight decrease, and degeneration of olfactory epithelium(nasal tissue).
Toxicity described in animals from repeated exposure by ingestion include weight loss, but there were no pathological abnormalities noted.
A single application of 10 ul to the eye caused corneal opacity. The administration of 1o-100 ul of a similar mixture caused corneal opacity, transient increases in corneal thickness, and transient corneal anesthesia. A single application of approximately 60 mg/kg to the skin caused transient increases in the distance from the cornea to the anterior surface of the lens of the eye.

12. ECOLOGICAL INFORMATION

Dibasic Ester -
AQUATIC TOXICITY:
Toxicity to Fish:
LC50 - Fathead minnows: 18-24 mg/L. Moderately toxic – 96 h

Toxicity to daphnia and other invertebrates:
LC50 – Daphnia magna Water Flea): 112-150 mg/L. – 48 h

WATERFOWL TOXICITY: No data available

12.2 PERSISTANCE AND DEGRADABILITY: The DIBASIC ESTER components, dimethyl succinate, dimethyl glutarate, and dimethyl adipate were tested for biodegradability using the 28-day closed bottle test. A minimum of 60% biodegradation must be reached in a 14 day window after exceeding the 10% level in order to pass this test and be rated as readily biodegradable. All of the components of DBE pass this test and, therefore, DBE is considered readily biodegradable.
Dimethyl succinate - 67% biodegradability in day 7
Dimethyl glutarate - 70% biodegradability in day 7
Dimethyl adipate -58% biodegradability in day 7
- 84% biodegradability in day 14

12.3 BIOACCUMULATIVE POTENTIAL: No data available

12.4 MOBILITY IN SOIL: Data are not available.

12.5 RESULTS OF PBT AND vPvT :
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 OTHER ADVERSE EFFECTS: Harmful to aquatic life. Discharge into the environment must be avoided.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.
Recover any DBE contaminated water and dispose of into an approved and permitted biological treatment system.
Do not flush any water or solids into surface water drains or sanitary sewer system..
Remove unusable solid material or contaminated soil for disposal into an approved and permitted landfill.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

Land Transport (DOT)
14.1 USDOT ID Number----------> N/A
14.2 USDOT Shipping Name----------> Not DOT Regulated
14.3 USDOT Hazard Classification-------> N/A
USDOT Label Codes----------> N/A
14.4 USDOT Package Code----------> N/A
14.5 Environmental hazard----------> No
14.6 Special precautions for user--------> None

Sea Transport (IMDG)
14.1 UN Number----------> N/A

14.2 Proper Shipping Name----------> Not Dangerous Goods
14.3 Hazard Class----------> N/A
USDOT Label Codes----------> N/A
14.4 Packing Group----------> N/A
14.5 Environmental hazard----------> No

Air Transport (IATA)
14.1 UN Number----------> N/A
14.2 Proper Shipping Name----------> Not Dangerous goods
14.3 Hazard Class----------> N/A
USDOT Label Codes----------> N/A
14.4 Packing Group----------> N/A
14.5 Environmental hazard----------> No

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed
SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed

SECTION 311/312: Hazard Categorization (40 CFR 370) – Acute Health Hazard, Chronic Health Hazard.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)
SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed
Reportable Quantity – None
SECTION 101(14) Reportable Quantity: None

Massachusetts Right to Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components
Dimethyl glutarate CAS-No.1119-40-0
Dimethyl succinate CAS-No.106-65-0
Dimethyl adipate CAS-No. 627-93-0

New Jersey Right to Know Components
Dimethyl glutarate CAS-No.1119-40-0
Dimethyl succinate CAS-No.106-65-0

Dimethyl adipate CAS-No.627-93-0

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other

TSCA (Toxic Substance Control Act)
Dimethyl glutarate CAS-No.1119-40-0, Dimethyl succinate CAS-No.106-65-0, and Dimethyl adipate CAS-No.627-93-0 are listed on the TSCA Inventory.

International Inventories:

Components listed:

Dimethyl succinate 106-65-0
EC-No. 203-419-9
Reg.-No. 01-2119486681-29-XXXX

Dimethyl glutarate 1119-40-0
EC-No.214-277-2
Reg.-No. 01-2119900156-49-XXXX

Dimethyl adipate CAS No.: 627-93-0
EC.No.211-020-6
Reg.-No. 01-2119911093-50-XXXX

Country 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 (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemicals Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Japan	Industrial Safety & Health Law Inventory (ISHL)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Mexico	National Inventory of Chemical Substances (INSQ)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Switzerland	Inventory of Notified New Substances (CHINV)	Yes
Taiwan	National Existing Chemical Inventory (NECI)	Yes
United States & Puerto Rico	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: No data available.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

4-Extreme
3-High
2-Moderate
1-Slight
0-Insignificant

NFPA RATINGS (SCALE 0-4): Health= 1 Fire= 1 Reactivity= 0
HMIS RATINGS (SCALE 0-4): Health= 1 Fire= 1 Reactivity= 0 PPE= G

Text of hazard statement codes in Sections 2 and 3:
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 3), H402

Date of preparation---------> August 25, 2014
Revision Number----------> 1.3
Revision Content----------> Updated sections: 3, 4, 5, 8, 10, and 16.
Revision Date----------> January 15, 2019
Prepared by----------> T.G. Fenstermaker

Acronyms:

ACGIH	-	American Conference of Governmental Industrial Hygenists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American Nation Standards Institute
API	-	American Petroleum Institute
CERCLA	-	Comprehensive Emergency Response, Compensation, and Liability Act
DOT	-	U.S. Department of Transportation
EC-50	-	Effective Concentration
EPA	-	U.S. Environmental Protection Agency
HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
LD-50	-	Lethal Dose
MAK	-	Germany Maximum Concentration Values
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

product, read its label. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.