1. PRODUCT & COMPANY IDENTIFICATION

1.1 Product Name: JOHN PAUL MITCHELL SYSTEMS - HOLD ME TIGHT (EU)

1.2 Chemical Name: Aerosol

1.3 Synonyms: John Paul Mitchell Systems - Hold Me Tight (EU) - 2324-72

1.4 Trade Names: John Paul Mitchell Systems - Hold Me Tight

1.5 Product Uses & Restrictions: Professional and Cosmetic Use

1.6 Distributor’s Name: KIK Custom Products

1.7 Distributor’s Address: 2030 Old Candler Road, Gainesville, GA 30507 USA

1.8 Emergency Phone: CHEMTEL: +1 (813) 248-0585 / +1 (888) 255-3924 (CN – MIS0002907)

1.9 Business Phone / Fax: +1 (770) 534-0300 / +1 (770) 534-8954

2. HAZARDS IDENTIFICATION

2.1 Hazard Identification: This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC:1008 (2004) and ADG Code (Australia). DANGER! EXTREMELY FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. CAUSES EYE IRRITATION.

Classification: Aerosol Level 2, Category 1 Aerosol; Extremely Flammable Aerosol


3. COMPOSITION & INGREDIENT INFORMATION

<table>
<thead>
<tr>
<th>CHEMICAL NAME(S)</th>
<th>CAS No.</th>
<th>RTECS No.</th>
<th>EINECS No.</th>
<th>%</th>
<th>EXPOSURE LIMITS IN AIR (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL (SD ALCOHOL 40B)</td>
<td>64-17-5</td>
<td>K65300000</td>
<td>200-578-6</td>
<td>30-60</td>
<td>ACGIH: TLV STEL</td>
</tr>
<tr>
<td>Flm, Liq 2: H226</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>DIMETHYL ETHER</td>
<td>115-10-6</td>
<td>NA</td>
<td>204-065-8</td>
<td>30-60</td>
<td>NA</td>
</tr>
<tr>
<td>Flm, Gas 1: Press, Gas; H220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JPMS PROPRIETARY BLEND</td>
<td>NA</td>
<td>NA</td>
<td>BAL</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 First Aid:

Ingestion: If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.

Skin: If irritation occurs & product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove contaminated clothing and wash thoroughly before reuse. If irritation, redness or swelling persists, consult a physician immediately.

Eyes: If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Raise and lower eyelid(s) while flushing to ensure thorough irrigation. If problems persist seek immediate medical attention.

Inhalation: Remove victim to fresh air and keep comfortable for breathing.
4. FIRST AID MEASURES - continued

4.2 Effects of Exposure:

Ingestion: If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.

Eyes: Moderately irritating to the eyes.

Skin: May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals upon prolonged or repeated exposure.

Inhalation: Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. Inhalation of concentrated vapors can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).

4.3 Symptoms of Overexposure:

Ingestion: May cause nausea, vomiting and/or diarrhea and central nervous system depression.

Eyes: Overexposure in eyes may cause redness, itching and watering (risk of serious damage to eyes). Contact may cause mild eye irritation including stinging, watering and redness.

Skin: Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas.

Inhalation: Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.

4.4 Acute Health Effects:

Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.

4.5 Chronic Health Effects:

No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.

4.6 Target Organs:

Eyes, skin, respiratory system.

4.7 Medical Conditions Aggravated by Exposure:

Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.

5. FIREFIGHTING MEASURES

5.1 Fire & Explosion Hazards:

Level 2 Aerosol (NFPAA 30B). Aerosols may burst at temperatures above 120 °F. Cool uninvolved containers to prevent possible bursting. Aerosols may be projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. Containers may rupture and release flammable liquids or exposed gasses if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished.

5.2 Extinguishing Methods:

Water Fog, Foam, Dry Chemical, CO2.

5.3 Firefighting Procedures:

As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand) and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Fight fire upwind. Avoid spraying water directly into storage containers because of danger of boiolover. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

6. ACCIDENTAL RELEASE MEASURES

6.1 Spills:

Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills. Small Spills: Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large Spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING & STORAGE INFORMATION

7.1 Work & Hygiene Practices:

Do not eat, drink or smoke when handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.

7.2 Storage & Handling:

Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying keep cap in place when not in use.

7.3 Special Precautions:

Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.
8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: ppm (mg/m³)

<table>
<thead>
<tr>
<th>CHEMICAL NAME(S)</th>
<th>ACGIH</th>
<th>TLV</th>
<th>STEL</th>
<th>ES-TWA</th>
<th>ES-STEL</th>
<th>ES-PEAK</th>
<th>OSHA PEL</th>
<th>STEL</th>
<th>DLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL (SD ALCOHOL 40B)</td>
<td></td>
<td>1000</td>
<td>3000</td>
<td>1000</td>
<td>1800</td>
<td>NF</td>
<td>1000</td>
<td>1900</td>
<td>3300</td>
</tr>
<tr>
<td>DIMETHYL ETHER</td>
<td>NA</td>
<td>NA</td>
<td>400</td>
<td>760</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

8.2 Ventilation & Engineering Controls: General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product.

8.3 Respiratory Protection: No special respiratory protection is required under typical circumstances of use or handling. In instances where dusts of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.

8.4 Eye Protection: Avoid eye contact. None required under normal conditions of use. Safety glasses could be used when handling or using large quantities of this product.

8.5 Hand Protection: None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. When handling large quantities (e.g., >1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves.

8.6 Body Protection: No apron required when handling small quantities. When handling large quantities (e.g., ≥ 5 lbs), eye wash stations and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Appearance: Aerosol, clear liquid

9.2 Odor: Characteristic odor

9.3 Odor Threshold: NA

9.4 pH: NA

9.5 Melting Point/Freezing Point: NA

9.6 Initial Boiling Point/Boiling Range: NA

9.7 Flashpoint: -30 °F (-34 °C) ITCC for propellant only. 36 °F (2.22 °C) EPA method 1010 Concentrate only

9.8 Upper/Lower Flammability Limits: UEL 9.5% V; LEL 1.8 % V

9.9 Vapor Pressure: @ 20°C (68°F) - Can pressure not to exceed 180 psig @ 55°C (131°F) 12.4 bar

9.10 Vapor Density: >1

9.11 Relative Density: 0.813-0.833

9.12 Solubility: Soluble

9.13 Partition Coefficient (log P<sub>ow</sub>): NA

9.14 Autoignition Temperature: NA

9.15 Decomposition Temperature: NA

9.16 Viscosity: Aerosol at ambient temperature

9.17 Other Information: Evaporation rate >1; Percent Volatile 95%

10. STABILITY & REACTIVITY

10.1 Stability: Stable at normal temperatures.

10.2 Hazardous Decomposition Products: Oxides of carbon (CO, CO₂) and sulfur (SO₂).

10.3 Hazardous Polymerization: Will not occur.

10.4 Conditions to Avoid: Excessive heat, direct sunlight, flames, heat sources and incompatible substances.

10.5 Incompatible Substances: Mixture with strong acids, alkalis or oxidizers.
### 11. TOXICOLOGICAL INFORMATION

| 11.1 Routes of Entry: &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&n...
15. REGULATORY INFORMATION – cont’d

15.7 State Regulatory Information: Ethanol is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), Pennsylvania Right-to-Know List (PA), and Washington Permissible Exposures List (WA).

Dimethyl ether is found on the following state criteria list: FL, MA, MN, and PA.

No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).

15.8 Other Requirements: The primary components of this product are listed in Annex I of EU Directive 67/548/EEC.


16. OTHER INFORMATION

16.1 Other Information: DANGER! EXTREMELY FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. CAUSES EYE IRRITATION. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing vapor/spray. Wash thoroughly with soap and water after handling. Use only in a well-ventilated area. Wear eye protection. Protect from sunlight. Do not expose to temperature exceeding 50 °C (122 °F). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye Irritation persists: Get medical advice/attention. KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.

16.2 Terms & Definitions: See last page of this Safety Data Sheet.

16.3 Disclaimer: This Safety Data Sheet is offered pursuant to OSHA’s Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate’s & KIK Custom Products’ knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

16.4 Prepared

KIK Custom Products
2030 Old Cumberland Road
Gainesville, GA 30507 USA
Tel: +1 (770) 534-0300
Fax: +1 (770) 534-8954
http://www.kikcorp.com
SAFETY DATA SHEET

DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these that are commonly used include the following:

### GENERAL INFORMATION:
- **CAS No.**: Chemical Abstract Service Number

### EXPOSURE LIMITS IN AIR:
- **ACGIH**: American Conference of Governmental Industrial Hygienists
- **OSHA**: U.S. Occupational Safety and Health Administration
- **STEL**: Short-Term Exposure Limit
- **TLV**: Threshold Limit Value

### FIRST AID MEASURES:
- **CPR**: Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.

### HMIS HEALTH, FLAMMABILITY & REACTIVITY RATINGS:
- **H**: Health
- **F**: Flammability
- **R**: Reactivity

### PERSONAL PROTECTION RATINGS:
- **A**: Airtight Pressure Suit
- **B**: Breathing Apparatus
- **C**: Chemical splash protection
- **D**: Dust mask or respirator
- **E**: Eye wash facilities
- **F**: Fire resistant clothing
- **G**: Goggles
- **H**: Gloves
- **I**: Incidental skin contact
- **J**: Impervious clothing
- **K**: Lab coat
- **X**: Consult your supervisor or SOPs for special handling directions.

### OTHER STANDARD ABBREVIATIONS:
- **ML**: Maximum Limit
- **mg/mL**: Milligrams per cubic meter
- **HA**: Hazardous Air
- **NO**: Not Available
- **NE**: Not Established
- **NF**: Not Found
- **pmm**: Parts per million
- **SCBA**: Self-Contained Breathing Apparatus

### FLAMMABILITY LIMITS IN AIR:
- **Autoignition Temperature**: Minimum temperature required to initiate combustion in air with no other source of ignition
- **LEL**: Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
- **UEL**: Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

### HAZARD RATINGS:
- **0**: Minimal Hazard
- **1**: Slight Hazard
- **2**: Moderate Hazard
- **3**: Severe Hazard
- **4**: Extreme Hazard

### TOXICOLOGICAL INFORMATION:
- **LD₅₀**: Lethal Dose (solids & liquids) w/ s
- **LC₅₀**: Lethal concentration (gases) which kills 50% of the exposed animal
- **pmm**: Concentration expressed in parts of material per million parts
- **LD₉₅**: Lowest dose to cause a symptom
- **TC₉₅**: Lowest concentration to cause a symptom
- **TD₅₀, LD₅₀, or LD₉₅**: Lowest dose (or concentration) to cause lethal or toxic effects

### RELEVANT PRECAUTIONS:
- **MARP**: Marine Pollution
- **BCF**: Bioconcentration Factor
- **COW or Log COW**: Coefficient of GWater Distribution

### REGULATORY INFORMATION:
- **WHMIS**: Canadian Workplace Hazardous Material Information System
- **DOT**: U.S. Department of Transportation
- **RC**: Transport Canada
- **EPA**: U.S. Environmental Protection Agency
- **OHS**: Canadian Occupational Health and Safety Commission
- **NCS**: Canadian Non-Hazardous Substances
- **PBT**: Canadian Priority Substances List
- **STL**: U.S. Toxic Substance Control Act

### WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:
- **Class A**: Compressed
- **Class B**: Flammable
- **Class C**: Oxidizing
- **Class D**: Toxic
- **Class E**: Infectious
- **Class F**: Corrosive

### EC (67/548/EEC) INFORMATION:
- **Corrosive**: E
- **Explosive**: F
- **Flammable**: N
- **Oxidizing**: O
- **Toxic**: T
- **Infectious**: X
- **Hazardous**: Xn

### CLP/GHS (1272/2008/EC) PICTOGRAMS:
- **Explosive**: E
- **Flammable**: F
- **Oxidizing**: O
- **Pressurized**: P
- **Corrosive**: C
- **Toxic**: T
- **Hazardous**: X
- **Health**: H
- **Environment**: E

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA