


Prepared to OSHA, ANSI, NOHSC, WHMIS, 1002/58 &amp; 1272/2008/EC Standards | SDS Revision: 4.7 | SDS Revision Date: 10/12/2021

## 1. PRODUCT IDENTIFICATION

1.1	Product Name: <b>HONA Gel Polish in all color variants</b>
1.2	Chemical Name: <b>POLYURETHANE (METH)ACRYLATE PREPOLYMER RESIN BLEND</b>
1.3	Synonyms: <b>NA</b>
1.4	Trade Names: <b>NA</b>
1.5	Product Use: <b>EXTERNAL USE ONLY, KEEP OUT OF THE REACH OF CHILDREN</b>
1.6	Manufacturer's Name: <b>MCCONNELL LABS, INC.</b>
1.7	Manufacturer's Address: <b>406 SW UMATILLA AVE, REDMOND, OR 97756 USA</b>
1.8	Emergency Phone: <b>CHEMTREC: +1 703 527 3887 / +1 800 424 9300 (CCN 696869)</b>
1.9	Business Phone / Fax: <b>+1 541 526 1417 / +1 541 526 1418</b>

## 2. HAZARD IDENTIFICATION

2.1	Hazard Identification: <b>This product is not classified as a HAZARDOUS SUBSTANCE and as a DANGEROUS GOOD according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia). WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. AVOID SKIN CONTACT DUE TO SENSITIZING POTENTIAL. CAUSES EYE IRRITATION. Hazard Statements (H): H317 - May cause an allergic skin reaction. H320 - Causes eye irritation. Precautionary Statements (P): P223 - Keep container tightly closed. P261 - Avoid breathing fumes/gas/vapors/spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves. P302 + P352 - IF ON SKIN - wash with soap and warm water. P305 + P351 + P338 - IF IN EYES - Rinse continually with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing. P333 + P313 - If skin reaction or a rash occurs, get medical attention. P337 + P313 - If eye irritation persists, P321 - for specific first aid treatment (see section 4 of this Safety Data Sheet). P363 - Wash contaminated clothing before reuse. P501 - Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF).</b>	
2.2	Routes of Entry:                      Inhalation: <b>YES</b> Absorption: <b>YES</b> Ingestion: <b>YES</b>	
2.3	Effects of Exposure: <b>INGESTION:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression. <b>EYES &amp; SKIN:</b> The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration. The vapor is discomforting to the eye. Splashes may cause severe eye irritation, possible corneal burns and eye damage. Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering. May be irritating to the skin, especially after prolonged contact. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.  <b>INHALATION:</b> 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, headaches, nausea). Odor may give some warning of exposure but odor fatigue may occur.	
2.4	Symptoms of Overexposure: <b>Symptoms of skin overexposure may include redness, itching and irritation of affected areas. Overexposure in eyes may cause redness, itching and watering. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.</b>	
2.5	Acute Health Effects: <b>Moderate irritation to eyes near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.</b>	
2.6	Chronic Health Effects: <b>The material may cause an allergic reaction for some sensitive individuals.</b>	
2.7	Target Organs: <b>Eyes, skin</b>	

### 3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m3)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
Bis-HEA IPDI / PPG-53 Copolymer	NA	NA	NA	30-50	NA	NA	NA	NA	NF	NA	NA	NA		
Bis-HEA Poly(1,4-butanediol)-9 / IPDI Copolymer	NA	NA	NA	15-30	NA	NA	NA	NA	NF	NA	NA	NA		
Bis-HEMA Polyneopentyl Glycol Adipate/IPDI Copolymer	82339-16-0	NA	NA	15-30	NA	NA	NA	NA	NF	NA	NA	NA		
PEG-4 Dimethacrylate	25852-47-5	NA	NA	5-13	NE	NE	NE	NE	NF	NE	NE	NE		
Tetrahydrofuryl Methacrylate	2455-24-5	NA	219-529-5	5-13	NE	NE	NE	NE	NF	NE	NE	NE		
Sucrose Benzoate	12738-64-6	NA	NA	5-13	NE	NE	NE	NE	NF	NE	NE	NE		
Isobornyl Methacrylate	7534-94-3	NA	231-403-1	5-13	NE	NE	NE	NE	NF	NE	NE	NE		
Trimethylolpropane Trimethacrylate	3290-92-4	NA	NA	5-13	NA	NA	NA	NA	NF	NA	NA	NA		
1-hydroxycyclohexyl phenylketone	947-19-3	NA	NA	≤1.0	NA	NA	NF	NF	NF	NA	NA	NA		
Trimethylebenzoyl Diphenylphosphine Oxide	75980-60-8	NA	278-355-8	≤1.0	NA	NA	NF	NF	NF	NA	NA	NA		
Silica	7631-86-9	NA	NA	≤1.0	NA	NA	NF	NF	NF	NA	NA	NA		
<b>MAY ALSO CONTAIN:</b>														
CI 77891 (Titanium Dioxide)	13463-67-7	XR2275000	236-675-5	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 15850 (Red 6)	17852-98-1	NA	241-806-4	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 47005 (Yellow 10)	8004-92-0 21645-51-2	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77007 (Ultramarine Blue)	57455-37-5	BQ4725000	215-111-1	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 45410 (Red 28)	18472-87-2	NA	241-409-6	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77499 (Black Iron Oxide)	52357-70-7	NA	257-870-1	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
MICA	12001-26-2	ZF6680000	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 16035 (Red 40)	25956-17-6	VV8760000	247-368-0	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 19140 (Yellow 5)	12225-21-7	NA	235-428-9	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 45410 (Red 48)	18472-87-2	NA	242-355-6	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77499 (Iron Oxide)	12227-89-3	NA	235-442-5	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77491 (Iron Oxide)	1309-37-1	NA	215-168-2	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA		



Polybutylene Terephthalate	26062-94-2	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
	Eye Irritant 2; H319												
Polyethylene Terephthalate	25038-59-9	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI15880 (Red 63)	6417-83-0	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 19140 (Yellow 23 Al Lake)	12225-21-7	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 15850 (Red 57)	5281-04-9	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 77510 (Prussion Blue)	25869-00-5	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 15880 (Red 34)	6417-83-0	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 15850 (Red 7)	6417-83-0	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 42090 (Blue 1)	3844-45-9	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 77510 (Blue 27)	25869-00-5	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 77266 (Carbon Black)	1333-86-4	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
Acrylates Copolymer	25035-69-2	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
Bis(glycidoxyphenyl)propane/Bisaminomethylnorbornane Copolymer	NA	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
	Aluminum hydroxide	21645-51-2	244-492-7										
	CI 47005	8004-92-0	305-632-3										
	CI 45410	18472-87-2	242-355-6										
	CI 45380	17372-87-1	241-409-6										
Bis(glycidoxyphenyl)propane/Bisaminomethylnorbornane Copolymer	NA	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
	Aluminum hydroxide	21645-51-2	244-492-7										
	CI 45410	18472-87-2	242-355-6										
	CI 45380	17372-87-1	241-409-6										
	Aluminum	1333-86-4	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA
Polyurethane-33	125826-44-0	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
Aluminum	7429-90-5	NA	NA	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	
CI 60725 (Violet #2)	81-48-1	NA	201-353-5	≤0.1	NA	NA	NF	NF	NF	NA	NA	NA	

\*\* Due to trade secret information, more detailed concentrations of the ingredients cannot be provided.

## 4. FIRST AID MEASURES

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4.1	First Aid:	<b>INGESTION:</b> If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient <b>SKIN &amp; EYES:</b> If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Open and close eyelid(s) <b>INHALATION:</b> Remove victim to fresh air at once. If breathing stops, perform artificial respiration. Seek immediate medical attention.											
4.2	Medical Conditions Aggravated by Exposure: Pre-existing dermatitis, other skin conditions and disorders of the target organs (eyes, skin)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #0000FF; color: white;">HEALTH</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #FF0000; color: white;">FLAMMABILITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: #FFFF00;">PHYSICAL HAZARDS</td> <td style="text-align: center;">0</td> </tr> <tr> <td>PROTECTIVE EQUIPMENT</td> <td style="text-align: center;">B</td> </tr> <tr> <td>EYES SKIN</td> <td></td> </tr> </table>	HEALTH	1	FLAMMABILITY	0	PHYSICAL HAZARDS	0	PROTECTIVE EQUIPMENT	B	EYES SKIN		
HEALTH	1												
FLAMMABILITY	0												
PHYSICAL HAZARDS	0												
PROTECTIVE EQUIPMENT	B												
EYES SKIN													

## 5. FIREFIGHTING MEASURES

5.1	Flashpoint & Method:	> 100 °C (> 212 °F)	
5.2	Autoignition Temperature:	NA	
5.3	Flammability Limits:	Lower Explosive Limit (LEL): NA      Upper Explosive Limit (UEL): NA	
5.4	Fire & Explosion Hazards:	When involved in a fire, this product may ignite and decompose to form toxic gases (e.g., CO, CO2 and Nox)	
5.5	Extinguishing Methods:	Water, Foam, CO2, Dry Chemical	
5.6	Fire Fighting Procedures:	First responders should wear eye protection. Structural fire fighters must wear full protective equipment and	



## 6. ACCIDENTAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For small spills (e.g., 1 gallon [3.785 liters]) wear appropriate personal protective equipment (e.g., goggles & gloves). Maximize ventilation (open doors and windows). Expose spilled material to UV light source for 2-5 minutes. Lift cured material from substrate and repeat until very little residue remains. Remove remaining spilled material with absorbent material and place into appropriate closed container(s). Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with warm, soapy water. Remove any contaminated clothing and wash before reuse. For large spills (e.g., > 1 gallon [3.785 liters]) deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Expose spilled material to UV light source for 2-5 minutes. Lift cured material from substrate and repeat until very little residue remains. Remove remaining spilled material with absorbent material and place into appropriate closed container(s). Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with warm, soapy water. Remove any contaminated clothing and wash before reuse. Keep spills and cleaning runoffs out of	
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## 7. HANDLING AND STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Avoid prolonged contact with this material. Avoid breathing the vapors generated by this product. Use in a well ventilated location (e.g., local exhaust ventilation, fans). Wash exposed skin thoroughly with plenty of soap and water after using this product. If necessary, use a moisturizer after washing. Do not eat, drink or smoke while handling this product.	
7.2	Storage & Handling:	Use and store in a cool, dry, well ventilated location. Keep away from excessive heat. Keep away from incompatible materials listed in Section 10. Do not store in damaged or unmarked containers or storage devices. Keep containers securely closed when not in use. Open slowly on a level, stable surface. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. As a precaution against exposure to the eyes, nose, throat and face, this product should not be stored higher than waist level. KEEP AWAY FROM CHILDREN AT ALL TIMES!	
7.3	Special Precautions:	Do not store where temperatures can exceed 50 °C (122 °F).	

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Ventilation & Engineering Controls:	Use with adequate ventilation (e.g., local exhaust ventilation, fans). Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye wash station).	
8.2	Respiratory Protection:	No special respiratory protections is required under typical circumstances of use or handling. In instances where vapors or sprays of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR § 1910.134, application U.S. State regulations or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC Member States or Australia.	
8.3	Eye Protection:	Wear protective eyewear (e.g., safety glasses with side shields) at all times when handling this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants.	
8.4	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 [3.785 liters]), wear nitrile or impervious gloves.	
8.5	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., . 1 gallon), 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	Density:	1.1
9.2	Boiling Point:	NA
9.3	Melting Point:	ND
9.4	Evaporation Rate:	NA
9.5	Vapor Pressure:	< 1 (air=1)
9.6	Appearance & Color:	Clear or pigmented liquid
9.7	Odor Threshold:	NE
9.8	Solubility:	Not soluble
9.9	pH:	NA
9.1	Viscosity:	approximately 4,000 cps
9.1	Flash Point:	26.7 °C (80 °F), calc
9.1	Other Information:	NA

## 10. STABILITY & REACTIVITY

10	Stability:	<b>Relatively stable under ambient conditions when stored properly.</b>
10	Hazardous Decomposition Products:	<b>If exposed to extremely high temperatures, products of thermal decomposition may include irritating vapors and toxic gases (e.g., oxides of carbon and nitrogen).</b>
10	Hazardous Polymerization:	<b>Will not occur.</b>
10	Conditions to Avoid:	<b>Exposure or contact to extreme temperatures, incompatible chemicals, strong light sources, sparks and flame.</b>
11	Incompatible Substances:	<b>Strong oxidizers, peroxides, strong acids or alkalis.</b>

## 11. TOXICOLOGICAL INFORMATION

11	Toxicity Data:	<b>This product has NOT been tested on animals to obtain toxicology data. There are toxicology data for the components of the product which are found in scientific literature. These data have not been presented in this document.</b>
11	Acute Toxicity:	<b>See Section 2.5</b>
11	Chronic Toxicity:	<b>See Section 2.6</b>

11	Suspected Carcinogen: <b>The ingredients of this product are not listed as carcinogens by the National Toxicology Program and have not been evaluated by the Internal Agency for Research on Cancer or the American Conference of Government Industrial Hygenists.</b>
12	Reproductive Toxicity: <b>This product is not reported to cause reproductive toxicity in humans.</b>
	Mutagenicity: <b>This product is not reported to produce mutagenic effects in humans.</b>
	Embryotoxicity: <b>This product is not reported to produce embryotoxic effects in humans.</b>
	Teratogenicity: <b>This products is not reported to cause teratogenic effects in humans.</b>
12	Irritancy of Product: <b>See Section 2.3</b>
12	Biological Exposure Indicies: <b>NE</b>
12	Physician Recommendations: <b>Treat syptomatically</b>

## 12. ECOLOGICAL INFORMATION

12	Environmental Stability: <b>This product will slowly volatile from soil. Components of this product will slowly decompose into organic compounds. Butyl Acetate: K<sub>oc</sub> = 1.82. Water Solubility: 120 parts H<sub>2</sub>O at 25 °C (77 °F). Bioconcentration Factor = 4-14. Bioconcentration is not anticipated to be significant. This compound can be removed from contaminated environments from volatilization and biodegradation. This compound's half life is 6.1 hours.</b>
12	Effects on Plants & Animals: <b>There is no specific data available for this product on plant life.</b>
12	Effects on Aquatic Life: <b>There is no specific data available for this product on aquatic life.</b>

## 13. DISPOSAL CONSIDERATIONS



13	Waste Disposal: <b>Dispose inaccordance with local, state and Federal waste laws.</b>
13	Special Considerations: <b>This material becomes an inert plastic upon prolonged exposure to sources of UV light and sunlight. Disposal of inert plastics is safer for the environment and is more easily handled for disposal according to local, state and Federal regulations.</b>

## 14. TRANSPORTATION INFORMATION

<b>The basic description (ID Number, proper shipping name, hazard class &amp; division, packing group) is shown for each mode of transportation. Additional</b>	
14	49 CFR (GRD): <b>NOT REGULATED</b>
14	IATA (AIR): <b>NOT REGULATED</b>
14	IMDG (OCN): <b>NOT REGULATED</b>
14	TDGR (Canadian GND): <b>NOT REGULATED</b>
15	ADR/RID (EU): <b>NOT REGULATED</b>
15	MEXICO (SCT): <b>NOT REGULATED</b>
15	ADGR (AUS): <b>NOT REGULATED</b>

## 15. REGULATORY INFORMATION

15	SARA Reporting: <b>NA</b>
15	SARA Threshold Planning Quantity: <b>NA</b>
15	TSCA Inventory Status: <b>All components of this product are listed in the TSCA Inventory or are exempt</b>

15	CERCLA Reportable Quantity (RQ): <b>NA</b>	
16	Other Federal Requirements: <b>This products complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).</b>	
16	Other Canadian Regulations: <b>This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDL. None of the components of this product are on the Priorities Substances List.</b>	
16	State Regulatory Information: <b>Ingredients in this mixture are found on the following state criteria lists: <u>Titanium Dioxide</u> is listed on the following state criteria list(s): Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposure List (WA).</b>	
16	67/548/EEC (European Union), Australian NOHSC:2011 (2003), and GHS Requirements: <b>The primary cononents of this product are not listed in Annex 1 of EU Directive 67/548/EEC. Irritant (Xi). Risk Phrases (R): 36/37/38 - Irritating to eyes, respiratory system and skin. Safety Phrases (S): 2-23-29 - Keep out of reach of Children. Do not breath gas, fumes, vapor or spray. Do not empty into drains.</b>	

## 16. OTHER INFORMATION

16	Other Information: <b>WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES EYE IRRITATION. Avoid breathing fume, gas, mist, vapors, spray. Wear protective gloves and eye/face protection. IF ON SKIN - Wash with soap and water. IF IN EYES - Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. If skin irritation or a rash occurs - get medical advice/attention. Do not take internally. Keep away from heat and open flame. KEEP OUT OF THE REACH OF CHILDREN.</b>
16	Terms & Definitions: Please see last page of this SDS.
16	Disclaimer: This Safety Data Sheet (SDS) 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 McConnell Labs' knowledge, the information contained herein is reliable and accurate as of the date it was prepared; 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	Prepared for: Home of Nail Art (HONA) 13614125, Wednesbury Street Newport, NP190FG, Wales
17	Prepared by: McConnell Labs, Inc. 406 SW Umatilla Ave Redmond, OR 97756 USA Tel: +1 541 526 1417 Fax: +1 541 526 1418



## 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
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**EXPOSURE LIMITS IN AIR:**

ACGIH	American Conference on Governmental Industrial Hygienists
TLV	Threshold Limit Value
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
IDLH	Immediately Dangerous to Life and Health

**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.
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**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS**

**HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard

<b>HEALTH</b>
<b>FLAMMABILITY</b>
<b>PHYSICAL HAZARDS</b>
<b>PERSONAL PROTECTION</b>

**PERSONAL PROTECTION RATINGS:**

<b>A</b>		<b>G</b>	
<b>B</b>		<b>H</b>	
<b>C</b>		<b>I</b>	
<b>D</b>		<b>J</b>	
<b>E</b>		<b>K</b>	
<b>F</b>		<b>X</b>	Consult your supervisor or SOPs for special handling directions.

Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
Boots	Synthetic Apron	Protective Clothing & Full Suit	Dust Respirator
Full Face Respirator	Dust & Vapor Half-Mask Respirator	Full Face Respirator	Airline Hood/Mask or SCBA

**OTHER STANDARD ABBREVIATIONS:**

NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

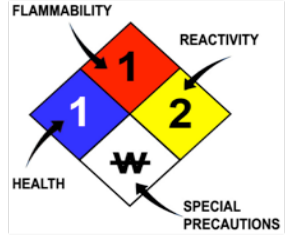
**NATIONAL FIRE PROTECTION ASSOCIATION: NFPA**

**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
ACD	Acidic
ALK	Alkaline
COR	Corrosive
W	Use No Water
OX	Oxidizer
TREFOIL	Radioactive



**TOXICOLOGICAL INFORMATION:**

LD <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC <sub>50</sub>	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD <sub>01</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>01</sub> , LD <sub>01</sub> , & LD <sub>01</sub> or TC, TC <sub>01</sub> , LC <sub>01</sub> , & LC <sub>01</sub>	Lowest dose (or concentration) to cause lethal or toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL <sub>01</sub>	Median threshold limit
log K <sub>OW</sub> or log K <sub>OC</sub>	Coefficient of Oil/Water Distribution

**REGULATORY INFORMATION:**

WHMIS	Canadian Workplace Hazardous Material Information System
DOT	U.S. Department of Transportation
TC	Transport Canada
EPA	U.S. Environmental Protection Agency
DSL	Canadian Domestic Substance List
NDSL	Canadian Non-Domestic Substance List
PSL	Canadian Priority Substances List
TSCA	U.S. Toxic Substance Control Act
EU	European Union (European Union Directive 67/548/EEC)
WGK	Wassergefährdungsklassen (German Water Hazard Class)

**WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:**

Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

**EC (67/548/EEC) INFORMATION:**

C	E	F	N	O	T	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

**CLP/GHS (1272/2008/EC) PICTOGRAMS:**

GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment