

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards


SDS Revision: 1.3

SDS Revision Date: 4/12/2018

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	GEL COLOR BY OPI – ALL SHADES (NON-FLAMMABLE)
1.2	Chemical Name:	Solvent Mixture
1.3	Synonyms:	NA
1.4	Trade Names:	GC *** (Various Colors) (Non-Flammable)
1.5	Product Use:	Cosmetic Use Only
1.6	Distributor's Name:	OPI Products, Inc.
1.7	Distributor's Address:	4500 Park Granada Blvd, Calabasas, CA 91302 USA
1.8	Emergency Phone:	CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 16377)
1.9	Business Phone / Fax:	Tel: +1 (818) 999-5112

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). WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES EYE IRRITATION. Classification: Skin Sens. 1A; Eye Irrit. 2A
2.2	Label Elements:	<p>Hazard Statements (H): H317 – May cause an allergic skin reaction. H320 – Causes eye irritation.</p> <p>Precautionary Statements (P): P233 – Keep container tightly closed. P261 – Avoid breathing dust/vapors. P264 – Wash exposed skin areas thoroughly with soap and water after handling. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/eye protection/face protection. P302+P352 – IF ON SKIN - Wash with soap and water. P305+P351+P338 – IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P333+P313 – If skin irritation or a rash occurs - Get medical advice/attention. 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).</p> 
2.3	Other Warnings:	KEEP OUT OF REACH OF CHILDREN.

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
DI-HEMA TRIMETHYLHEXYL DICARBAMATE	72869-86-4	NA	276-957-5	40-70	NA	NA	NF	NF	NF	NA	NA	NA		
	Skin Sens.1; H317													
HYDROXYETHYL METHACRYLATE (HEMA)	868-77-9	OZ4725000	212-782-2	15-40	NA	NA	NF	NF	NF	NA	NA	NA		
	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1; H319, H315, H317													
HYDROXYPROPYL METHACRYLATE	27813-02-1	UD3422500	248-666-3	10-30	NA	NA	NF	NF	NF	NA	NA	NA		
	Skin Sens. 1; Eye Irrit. 2; H317, H319													
HYDROXYCYCLOHEXYL PHENYL KETONE	947-19-3	NA	213-426-9	3.0-7.0	NA	NA	NF	NF	NF	NA	NA	NA		
	Acute Tox. Oral 5; Acute Aq. Tox. 3; H303, H402													
MAY CONTAIN:														
MICA	12001-26-2	VV8760000	310-127-6	0.1-1.0	3	NA	NF	2.5	NF	20	NA	1500	RESP FRAC	
CI 77891 (TITANIUM DIOXIDE)	13463-67-7	XR2275000	236-675-5	0.0-1.0	(10)	NA	NF	NF	NF	(5)	NA	5000	TOTAL DUST	
CI 75470 (CARMINE)	1390-65-4	NA	215-724-4	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CALCIUM ALUMINUM BOROSILICATE	65997-17-3	NA	266-046-0	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
TIN OXIDE	18282-10-5	XQ4000000	242-159-0	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
SILICA	7631-86-9	VV7310000	231-545-4	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	3000	RESP FRAC	
RED 6 (CI 15850)	5858-81-1	NA	227-497-9	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
RED 7 (CI 15850)	5281-04-9	NA	226-109-5	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 60725 (VIOLET 2)	81-48-1	CB7700000	201-353-5	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77491 (IRON OXIDES)	1309-37-1	NO740000	215-168-2	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		

3. COMPOSITION & INGREDIENT INFORMATION- cont'd

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
MAY CONTAIN (CONTINUED):														
CI 77492 (IRON OXIDES)	51274-00-1	NA	257-098-5	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77499 (IRON OXIDES)	1317-61-9	NA	215-277-5	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 73360 (RED 30)	2379-74-0	NA	219-163-6	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 45410 (RED 27)	13473-26-2	NA	236-747-6	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77120 (BARIUM SULFATE)	7727-43-7	CR0600000	231-784-4	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77007 (ULTRAMARINES)	1302-83-6	NA	215-111-1	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 19140 (YELLOW 5)	1934-21-0	UQ6400000	217-699-5	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77163 (BISMUTH OXYCHLORIDE)	7787-59-9	EB2700000	232-122-7	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77742 (MANGANESE VIOLET)	10101-66-3	NA	233-257-4	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77510 (FERRIC FERROCYANIDE)	14038-43-8	NA	237-875-5	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 42090 (BLUE1)	3844-45-9	BQ4725000	223-339-8	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CI 17200 (RED 33)	3567-66-6	NA	222-656-9	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
CI 77000 (ALUMINUM POWDER)	7429-90-5	BD0330000	231-072-3	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		


4. FIRST AID MEASURES

4.1	First Aid:	<p>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. Call a POISON CENTER /doctor if you feel unwell. 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.</p> <p>Eyes: Splashes are not likely; however, if product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.</p> <p>Skin: If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.</p> <p>Inhalation: Remove victim to fresh air at once.</p>
4.2	Effects of Exposure:	<p>Ingestion: If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.</p> <p>Eyes: Irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p>Skin: May be irritating to skin in some sensitive individuals, especially after prolonged and/or repeated contact.</p> <p>Inhalation: Vapors of this product may be slightly 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 vapors exceeding the levels listed in Section 3 (Composition and Ingredient Information) can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).</p>
4.3	Symptoms of Overexposure:	Symptoms of skin overexposure in individuals may include redness, itching, and irritation of affected areas. Overexposure in eyes may cause redness, itching and watering.
4.4	Acute Health Effects:	Mild to 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:	None known.
4.6	Target Organs:	Eyes, Skin, Respiratory System.

4. FIRST AID MEASURES – cont'd

4.7	Medical Conditions Aggravated by Exposure:	<p>None reported by the manufacturer.</p> <p><u>Special Removal Instructions:</u> Follow GelColor nail prep & removal instructions. Longer wear may increase removal time - soak nails longer. Do not force or pull gel away from nail or use metal implements/electric drill to remove product. If client experiences any sensation during removal (e.g. pressure, squeezing, pinching), remove wrap and gently file surface of gel only along side walls with EDGE 240 File. Gently push off as much GelColor as possible with the Reusable Cuticle Stick. Resaturate foil wrap, rewrap nail, and continue soaking.</p>	HEALTH		1
			FLAMMABILITY		1
			PHYSICAL HAZARDS		1
			PROTECTIVE EQUIPMENT		B
			EYES	SKIN	

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	Exothermic polymerization may cause containers to rupture. Cool containers with water to prevent polymerization. This product is a non-flammable liquid. When involved in a fire, this product may ignite and decompose to form toxic gases (e.g., CO, CO ₂ , NO _x).	
5.2	Extinguishing Methods:	CO ₂ , Halon, Dry Chemical, Foam	
5.3	Firefighting Procedures:	<p>This product is a combustible liquid. When involved in a fire, this product may ignite readily and decompose to produce carbon oxides.</p> <p>First responders should wear eye protection. Structural firefighters must wear SCBAs and full protective equipment. Use a water spray or fog to reduce or direct vapors. Water may not be effective in actually extinguishing a fire involving this product.</p>	

6. ACCIDENTAL RELEASE MEASURES

6.1	Spills:	<p>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment.</p> <p>For <u>small spills</u> (e.g., < 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows). Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.</p> <p>For <u>large spills</u> (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of drains, municipal sewers and open bodies of water.</p>
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7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Avoid prolonged contact with the product. After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.
7.2	Storage & Handling:	Keep this material away from heat, sparks and open flame. Open containers slowly on a stable surface. Keep container closed tightly when not in use. Empty container may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Store away from incompatible materials (See Section 10, Stability and Reactivity). Material should be stored in secondary containers as appropriate.
7.3	Special Precautions:	Open containers slowly on a stable surface. Keep container tightly closed when not in use. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. <u>Special Removal Instructions:</u> Follow GelColor nail prep & removal instructions. Longer wear may increase removal time - soak nails longer. Do not force or pull gel away from nail or use metal implements/electric drill to remove product. If client experiences any sensation during removal (e.g. pressure, squeezing, pinching), remove wrap and gently file surface of gel only along side walls with EDGE 240 File. Gently push off as much GelColor as possible with the Reusable Cuticle Stick. Resaturate foil wrap, rewrap nail, and continue soaking.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Exposure Limits: ppm (mg/m ³)		ACGIH		NOHSC			OSHA			OTHER
		CHEMICAL NAME(S)	TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		MICA	3	NA	NF	2.5	NF	20	NA	1500	RESP FRAC
		CI 77891 (TITANIUM DIOXIDE)	(10)	NA	NF	NF	NF	(5)	NA	5000	TOTAL DUST
		SILICA	NA	NA	NF	NF	NF	NA	NA	3000	RESP FRAC
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. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.									
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, EU member states, or Australia.									

8. EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd

8.4	Eye Protection:	Depending on the use of this product, splash or safety glasses may be worn. If necessary, refer to U.S. OSHA 29 CFR §1910.133, Canadian standards, or the European Standard EN166.	
8.5	Hand Protection:	If anticipated that prolonged & repeated skin contact will occur during use of this product, wear neoprene or rubber gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada or the EU member states.	
8.6	Body Protection:	No special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate standards of Canada, the EU member states, or U.S. OSHA.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Viscous liquid various colors
9.2	Odor:	Characteristic
9.3	Odor Threshold:	ND
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NE
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	NA
9.8	Upper/Lower Flammability Limits:	NE
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA
9.11	Relative Density:	1.100-1.300
9.12	Solubility:	Insoluble
9.13	Partition Coefficient (log P _{ow}):	NA
9.14	Autoignition Temperature:	ND
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	1,500– 5,000 cPs
9.17	Other Information:	NA

10. STABILITY & REACTIVITY

10.1	Stability:	Stable under ambient conditions when stored properly (See Section 7, Storage and Handling).
10.2	Hazardous Decomposition Products:	If exposed to extremely high temperatures, the products of thermal decomposition may include irritating vapors and carbon oxide gases (e.g., CO, CO ₂).
10.3	Hazardous Polymerization:	May occur, if exposed to extremely high temperatures.
10.4	Conditions to Avoid:	Exposure or contact to extreme temperatures, incompatible chemicals, strong light sources, sparks, flame.
10.5	Incompatible Substances:	This product is incompatible with strong oxidizers (e.g., peroxides, superoxides), strong acids (e.g., hydrochloric or muriatic acids), or strong bases (e.g., lye, potassium hydroxide) and potassium t-butoxide.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation: YES	Absorption: YES	Ingestion: YES
11.2	Toxicity Data:	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.		
11.3	Acute Toxicity:	See Section 4.5		
11.4	Chronic Toxicity:	See Section 4.6		
11.5	Suspected Carcinogen:	This product contains <u>Silica</u> , which is not carcinogenic to humans, but is listed as Group 3 carcinogen by IARC. This product contains <u>CI 77891 (Titanium Dioxide)</u> listed as Group 2B carcinogen by IARC		
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.		
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.		
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.		
	Teratogenicity:	This product is not reported to cause teratogenic effects in humans.		
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.		
11.7	Irritancy of Product:	See Section 4.3		
11.8	Biological Exposure Indices:	NE		
11.9	Physician Recommendations:	Treat symptomatically.		

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	The components of this product will slowly degrade over time into a variety of organic compounds. Specific environmental data available for the components of this product but are not presented in this document.
12.2	Effects on Plants & Animals:	There are no specific data available for this product.
12.3	Effects on Aquatic Life:	There are no specific data available for this product.

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13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Waste disposal must be in accordance with appropriate Federal, state, and local regulations.
13.2	Special Considerations:	NA

14. TRANSPORTATION INFORMATION

The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.



14.1	49 CFR (GND):	NOT REGULATED	
14.2	IATA (AIR):	NOT REGULATED	
14.3	IMDG (OCN):	NOT REGULATED	
14.4	TDGR (Canadian GND):	NOT REGULATED	
14.5	ADR/RID (EU):	NOT REGULATED	
14.6	SCT (MEXICO):	NOT REGULATED	
14.7	ADGR (AUS):	NOT REGULATED	

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	NA
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory or are otherwise exempt.
15.4	CERCLA Reportable Quantity (RQ):	NA
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).
15.6	Other Canadian Regulations:	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 listed on the Priorities Substances List. Class B2 Flammable Liquid.
15.7	State Regulatory Information:	<p><u>Di-Hema Trimethylhexyl Dicarbamate</u> is found on the following state criteria list: New Jersey Right-to-Know List (NJ), Pennsylvania Right-to-Know List (PA)</p> <p><u>Hydroxyethyl Methacrylate (HEMA)</u> is found on the following state criteria list: NJ and PA.</p> <p>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).</p>
15.8	Other Requirements:	This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For more information, go to www.P65warnings.ca.gov .



16. OTHER INFORMATION

16.1	Other Information:	WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES EYE IRRITATION. Keep container tightly closed. Avoid breathing fume/vapors. Wash exposed skin areas thoroughly with soap and water after handling. Wear protective gloves/eye protection/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. For specific first aid treatment (See Section 4 of this Safety Data Sheet). Wash contaminated clothing before reuse. For external use only. Do not ingest. Use only as directed. Discontinue use immediately if irritation develops. KEEP OUT OF THE 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 & OPI's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is 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 for:	OPI Products, Inc. 4500 Park Granada Blvd Calabasas, CA 91302 USA Tel: +1 (818) 999-5112 http://www.opi.com	
16.5	Prepared by:	ShipMate, Inc. P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com	

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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
RTECS No.	Registry of Toxic Effects of Chemical Substances Number
EINECS No.	European Inventory of Existing Commercial Chemical Substances Number

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
IDLH	Immediately Dangerous to Life and Health
NOHSC	National Occupational Health and Safety Commission (Australia)
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

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

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

PERSONAL PROTECTION RATINGS:

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

Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
Boots	Protective 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:

Carc	Carcinogenic
Irrit	Irritant
NA	Not Available
NR	No Results
ND	Not Determined
NE	Not Established
NF	Not Found
SCBA	Self-Contained Breathing Apparatus
Sens	Sensitization
STOT RE	Specific Target Organ Toxicity – Repeat Exposure
STOT SE	Specific Target Organ Toxicity – Single Exposure

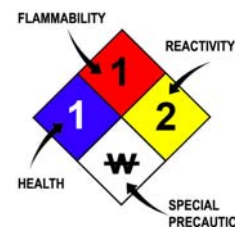
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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:

LD₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC₅₀	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD₁₀	Lowest dose to cause a symptom
TCLO	Lowest concentration to cause a symptom
TD₁₀, LD₁₀, & LD₅₀ or TC, TC₁₀, LC₁₀, & LC₅₀	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_m	Median threshold limit
log K_{ow} or log K_{oc}	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

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