

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	OYA® TEXTURIZING SPRAY
1.2	Chemical Name:	Aerosol
1.3	Synonyms:	Texture Spray
1.4	Trade Names:	OYA® Texturizing Spray
1.5	Product Uses & Restrictions:	Professional or Cosmetic Use Only
1.6	Distributor's Name:	Helias LLC
1.7	Distributor's Address:	17030 Ventura Blvd, Suite 200, Los Angeles, CA 91316 USA
1.8	Emergency Phone:	CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-3887
1.9	Business Phone / Fax:	+1 (310) 437-4480 / +1 (310) 437-4481

2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	<p>Prepared in accordance with UN Globally Harmonized standards. Intended to comply with OSHA 29 CFR 1910.1200, Canadian WHMIS and Australian Work Health and Safety standards. This product is classified as a hazardous substance and as dangerous goods according to the classification criteria of WHSR and ADG Code (Australia).</p> <p>WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION.</p> <p>Classification: Aerosol 2, Skin Irrit. 2, Eye Irrit. 2A</p>										
2.2	Label Elements:	<p>Hazard Statements (H): H223 – Flammable aerosol. H229 – Pressurized container, may burst if heated. H315 – Causes skin irritation. H319 – Causes serious eye irritation.</p> <p>Precautionary Statements (P): P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 – Do not spray on open flame or other ignition source. P251 – Do not pierce or burn, even after use. P261 – Avoid breathing fume/gas/mist/vapors/spray. P264 – Wash hands and exposed skin areas with soap and warm thoroughly after handling. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/eyewear. P302+P352 – IF ON SKIN: Wash with plenty warm water and soap. P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 – If eye irritation persists get medical advice/attention. P362+P364 – Take off contaminated clothing and wash it before reuse. P370+P378 – In case of fire: Use Water, Foam, CO2, Dry Chemical, Halon (if authorized), to extinguish. P403+P235 – Store in a well-ventilated place. Keep cool. P410+P412 – Protect from sunlight. Do not expose to temperatures exceeding 50 °C (122 °F). 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/m³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
DIFLUOROETHANE (R-152a)	75-37-6	KI4100000	200-866-1	50-80	1000	NA	1000	NF	NF	NA	NA	NA		
	Flam. Gas 1; H220													
DIMETHYL ETHER	115-10-6	NA	204-065-8	10-20	NA	NA	400	760	NF	NA	NA	NA		
	Flam. Gas 1; Press. Gas; H220													
ETHANOL (SD ALCOHOL 40B)	64-17-5	KQ6300000	200-578-6	10-20	1000	3000	1000	1800	NF	1000	1900	3300		
	Flam.Liq.2; H225													
VP/VA COPOLYMER	25086-89-9	NA	NA	1-5	NA	NA	NF	NF	NF	NA	NA	NA		
GLYCERIN	56-81-5	MA8050000	200-289-5	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
SILICA SILYLATE	NA	NA	NA	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
FRAGRANCE (PARFUM)	NA	NA	NA	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
HEXYL CINNAMAL	101-86-0	GD6560000	202-983-3	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
	Skin Sens. 1B, Aquatic Chronic 2; H317, H411													
BENZYL SALICYLATE	118-58-1	VO1750000	204-262-9	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
	Skin Sens. 1; Aquatic Chronic 2; H303, H317, H319, H371, H401													
CITRONELLOL	106-22-9	RH3400000	203-375-0	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
	Skin Irrit. 2, Skin Sens. 1B, Eye Irrit. 2; H315, H317, H319													
PANTHENOL	81-13-0	NA	201-327-3	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
TRIETHYL CITRATE	77-93-0	NA	201-070-7	0-0.1	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/m³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
SIMMONDSIA CHINENSIS (JOJOBA) SEED OIL	61789-91-1	NY9262700	289-964-3	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
BUTYLENE GLYCOL	107-88-0	EK0440000	203-529-7	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
HELIANTHUS ANNUUS (SUNFLOWER) SEED OIL	8001-21-6	NA	232-279-6	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		

4. FIRST AID MEASURES

4.1	First Aid:	<p><u>Ingestion:</u> If ingested, DO NOT INDUCE VOMITING. Seek immediate medical attention. Contact the nearest Poison Control Center or local emergency telephone number for assistance and instructions. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.</p> <p><u>Eyes:</u> If product gets in the eyes, remove contact lenses (if used), flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek medical attention.</p> <p><u>Skin:</u> 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><u>Inhalation:</u> Remove victim to fresh air at once. If not breathing, give artificial respiration and contact a physician or local emergency services immediately.</p>															
4.2	Effects of Exposure:	<p><u>Ingestion:</u> If product is swallowed, may cause nausea, vomiting and/or diarrhea.</p> <p><u>Eyes:</u> Slightly irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p><u>Skin:</u> This product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> <p><u>Inhalation:</u> Coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract.</p>															
4.3	Symptoms of Overexposure:	<p>Overexposure in eyes may cause redness, itching and watering. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. The product may cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> <p><u>Inhalation:</u> Coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract.</p>															
4.4	Acute Health Effects:	Slightly irritating to the eyes.															
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion.															
4.6	Target Organs:	Eyes, Skin															
4.7	Medical Conditions Aggravated by Exposure:	<p>Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin).</p> <table><tr><td colspan="2">HEALTH</td><td>1</td></tr><tr><td colspan="2">FLAMMABILITY</td><td>3</td></tr><tr><td colspan="2">PHYSICAL HAZARDS</td><td>0</td></tr><tr><td colspan="2">PROTECTIVE EQUIPMENT</td><td>B</td></tr><tr><td>EYES</td><td>SKIN</td><td></td></tr></table>	HEALTH		1	FLAMMABILITY		3	PHYSICAL HAZARDS		0	PROTECTIVE EQUIPMENT		B	EYES	SKIN	
HEALTH		1															
FLAMMABILITY		3															
PHYSICAL HAZARDS		0															
PROTECTIVE EQUIPMENT		B															
EYES	SKIN																

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	FLAMMABLE AEROSOL. Level 2 Aerosol (NFPA 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/and exposed gases if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished. Keep away from heat, lit cigarettes, sparks & open flame. Keep container closed. When exposed to high temperatures, may produce hazardous decomposition products such as oxides of carbon (e.g., CO, CO ₂) and nitrogen (e.g., NO _x) and smoke.	
5.2	Extinguishing Methods:	Water, Foam, CO ₂ , Dry Chemical, Halon (if authorized)	
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. 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:	<p>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE).</p> <p>For small spills (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. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.</p> <p>For large spills (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. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.</p>
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7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Do not eat, drink, or smoke while handling this product. Wash thoroughly after handling. Wash 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). Keep away from excessive heat and open flames. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage.
7.3	Special Precautions:	Spilled material may present a fire and slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Exposure Limits: ppm (mg/m³)	CHEMICAL NAME(S)	ACGIH		NOHSC			OSHA			OTHER
			TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		DIFLUOROETHANE (R-152a)	1000	NA	1000	NF	NF	NA	NA	NA	
		DIMETHYL ETHER	NA	NA	400	760	NF	NA	NA	NA	
		ETHANOL (SD ALCOHOL 40B)	1000	3000	1000	1800	NF	1000	1900	3300	
		HEXYL CINNAMAL	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		BENZYL SALICYLATE	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		CITRONELLOL	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
8.2	Ventilation & Engineering Controls:	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use in a chemical fume hood when working with large quantities of product and provide adequate ventilation (e.g., local exhaust ventilation, fans) to avoid buildup of vapors.									
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, applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.									
8.4	Eye Protection:	AVOID EYE CONTACT. Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling large quantities (e.g., ≥ 1 gallon (3.8 L)) of this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard as soft lenses may absorb and concentrate irritants.									
8.5	Hand Protection:	Wear latex, rubber, nitrile or other impervious plastic gloves. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states.									
8.6	Body Protection:	No special body protection is required under typical circumstances of use and handling. Apron recommended when handling large quantities (e.g., ≥ 1 gallon). Eye wash stations and deluge showers should be available.									

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Aerosol. Liquid.
9.2	Odor:	Fragrant 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:	8.9 °C (48 °F)
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	70 ± 5 psig @ 70 °F
9.10	Vapor Density:	NA

9. PHYSICAL & CHEMICAL PROPERTIES – cont'd

9.11	Relative Density:	0.85 ± 0.012 (7.08 ± 0.10 lb/gal)
9.12	Solubility:	Soluble
9.13	Partition Coefficient (log Pow):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	NA
9.17	Other Information:	VOC: 33.4%

10. STABILITY & REACTIVITY

10.1	Stability:	This product is stable under normal conditions. Unstable with heat.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO ₂), nitrogen (NO _x) and sulfur (SO ₂).
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks, high heat, incompatible substances and direct sunlight.
10.5	Incompatible Substances:	Avoid extreme heat and ignition sources. Store away from oxidizers.

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. Toxicology data, found in scientific literature, is available for some of the components of the product, but is not presented in this document.		
11.3	Acute Toxicity:	See Section 4.4		
11.4	Chronic Toxicity:	See Section 4.5		
11.5	Suspected Carcinogen:	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 .		
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive effects 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:	There is no specific data available for this product.
12.2	Effects on Plants & Animals:	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Dispose of in accordance with federal, state and local regulations.
13.2	Special Considerations:	U.S. EPA Waste Number: D003 (characteristic - reactive)

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):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	
14.2	IATA (AIR):	CONSUMER COMMODITY, 9, ID8000 (IP VOL ≤ 0.5 L); or UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L)	 or 
14.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	
14.4	TDGR (CANADA):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	
14.6	SCT (MEXICO):	UN1950, AEROSOLS, 2.1 (CANT. LTDA., IP VOL ≤ 1.0 L)	
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substances subject to SARA Title III, section 313 reporting requirements.
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.
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). This material does not contain any hazardous air pollutants. None of the components in this product are listed as priority pollutants under the CWA. None of the components in this product are listed as toxic pollutants under the CWA.
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/NDSL. None of the components of this product are listed on the Priorities Substances List. WHMIS B5, D2B (Aerosol, Other Toxic Effects)
15.7	State Regulatory Information:	<u>Ethanol</u> is found on the following state criteria lists: FL, MA, MN, NJ, PA, WA. <u>Difluoroethane</u> can be found on the following state criteria lists: MA and NJ. 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:	This product is found on the following inventory lists: Australia - AICS, China - IECSC, Europe - ELINCS/EINEC, Japan - ENCS; Korea - KECI; New Zealand - NZIoC; {Philippines - PICCS; USA - TSCA



16. OTHER INFORMATION

16.1	Other Information:	WARNING! PRESSURIZED CONTAINER: MAY BURST IF HEATED. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES EYE IRRITATION. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122°F. Dispose of contents/container to a licensed Treatment, Storage or Disposal Facility (TSDF). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment, see Section 4 of the Safety Data Sheet. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122°F. KEEP 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 & Helias LLC 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:	Helias LLC 17030 Ventura Blvd, Suite 200 Los Angeles, CA 91316 USA Tel: +1 (310) 437-4480 Fax: +1 (310) 437-4481 www.heliascosmetics.com	 <p>OYA OWN YOUR ART</p>
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	 <p>ShipMate Dangerous Goods Training & Consulting</p>

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	
B	
C	
D	
E	
F	

G	
H	
I	
J	
K	
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:

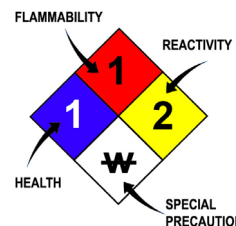
Carc	Carcinogenic
Irrit	Irritant
NA	Not Available
NR	No Results
ND	Not Determined
NE	Not Established
NF	Not Found
SCBA	Self-Contained Breathing Apparatus
Sens	Sensitization
STOT RE	Specific Target Organ Toxicity – Repeat Exposure
STOT SE	Specific Target Organ Toxicity – Single Exposure

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, TC₅₀, 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