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SAFETY DATA SHEET

Page 1 of 6 SDS-035

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 4.2 SDS Revision Date: 4/12/2018 1. PRODUCT & COMPANY IDENTIFICATION Product Name: **OPI MACH 5** 1.2 Chemical Name: Cyanoacrylate Mixture 1.3 Synonyms NA 1.4 Trade Names NA 491, NA 492, NA 493, NA 494 1.5 Product Use: Professional or Sundry 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 21 Hazard Identification: This product is classified as a hazardous substance and as dangerous goods according to the classification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia). WARNING! CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. Classification: Skin. Irrit. 2; Skin Sens. 1A; Eye Irrit. 2A; STOT SE 3 Label Elements: 2.2 Hazard Statements (H): H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 – Causes serious eye irritation. H335 – May cause respiratory irritation. Precautionary Statements (P): P210 - Keep away from heat/sparks/open flame/hot surfaces - No Smoking. P233 - Keep container tightly closed. P261 - Avoid breathing fume/ mist/vapors/spray. 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/protective clothing/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. P370+P378 - In case of fire, CO2, Halon (if permitted), dry chemical, or foam for extinction. P403+P235 - Store in a well-ventilated place. Keep cool. P501 - Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF). Other Warnings: KEEP OUT OF REACH OF CHILDREN. 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) **ACGIH** NOHSC **OSHA** ppm ppm ppm ES-CHEMICAL NAME(S) CAS No. RTECS No. EINECS No TLV STEL TWA STEL PEAK PEL STEL **IDLH** OTHER 60-100 7085-85-0 UD3330050 230-391-5 (0.2)NA NF NF NA NA NA ETHYL CYANOACRYLATE Skin Irrit.2; Eye Irrit. 2; STOT SE 3; H315, H319, H335 10586-17-1 234-188-2 5-10 NA NA NF NF NF NA NA NA NA ISOPROPYL CYANOACRYLATE 4. FIRST AID MEASURES 4.1 First Aid: If ingested, do not induce vomiting. Contact the nearest Poison Control Center or local emergency Ingestion: number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Skin: This product bonds skin immediately. Do not pull. Peel slowly using acetone, (use lukewarm water only for product removal, if skin bonding has occurred near the eyes). 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. May bond skin to clothing and may release heat, causing burns. Cool burned area immediately with cold water. If clothing adheres to skin, do not pull; peel slowly under lukewarm water. Consult a physician for treatment of Contact a physician immediately. Do not try to open the eye. Flush with cool water for at least 15 minutes Eyes: opening and closing eyelids to ensure thorough irrigation. If irritation persists, contact a physician. Remove victim to fresh air at once. If breathing stops, perform artificial respiration. Seek immediate Inhalation:

medical attention.

SAFETY DATA SHEET

Page 2 of 6 SDS-035

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

SDS Revision: 4.2

SDS Revision Date: 4/12/2018

	I = # =	Т.	4. FIRST AID MEASURES – cont'					
1.2	Effects of Exposure:	Ingestion: If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.						
		<u>Eyes</u> : Vapor of this product may be mildly to moderately irritation to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.						
		Skin: May be irritating to skin in some sensitive individuals, especially after prolonged or repeated shay bond skin to clothing and release heat, causing burns.						
		Inhalation:	Inhalation of vapors is unlikely under normal condition irritating to the nose, throat and other tissues of the resinclude coughing, wheezing, nasal congestion, and difficult levels listed in Section 3 (Composition and Ingredient depression (e.g., drowsiness, dizziness, headaches, national conditions are sent to the conditions of the conditions of the conditions are sent to the conditions of the condition	ns of use. Vapors of this product may be slight spiratory system. Symptoms of overexposure ca culty breathing. Inhalation of vapors exceeding th t Information) can cause central nervous system				
3	Symptoms of Overexposure:	Symptoms of skin overexposure in some sensitive individuals may include redness, itching, and irritation of affected areas. Overexposure of vapor in eyes may cause redness, itching and watering.						
4	Acute Health Effects:	Mild to moderate irritation to skin near affected areas. Vapor of this product may be mildly to moderately irritating to the eyes and mucous membranes. Symptoms of overexposure may include redness, itching, irritation and watering.						
			high concentrations of vapors can cause drowsiness, dizz	ziness, headaches and nausea.				
.5	Chronic Health Effects:	None known						
6	Target Organs:	Eyes, Skin, I	Respiratory System.					
7	Medical Conditions		dermatitis, other skin conditions, and disorders of the	HEALTH 2				
	Aggravated by Exposure:	target organs	s (eyes, skin, and respiratory)	FLAMMABILITY 1				
				PHYSICAL HAZARDS 2				
				PROTECTIVE EQUIPMENT B EYES SKIN				
	1		5. FIREFIGHTING MEASURES					
	Fire & Evaluation Hazarda:							
	Fire & Explosion Hazards:	Rapid polym	erization may occur at very high temperatures.					
5.2	Extinguishing Methods: Firefighting Procedures:	Water, CO ₂ , When involv	Halon (if permitted), Dry Chemical ed in a fire, this product will ignite readily and decompose					
.2	Extinguishing Methods:	Water, CO ₂ , When involv and nitrogen a source of in First respondences	Halon (if permitted), Dry Chemical	ier than air and may travel to smust wear SCBAs and full				
5.2	Extinguishing Methods:	Water, CO ₂ , When involv and nitrogen a source of in First respon- protective ed effective in a	Halon (if permitted), Dry Chemical ed in a fire, this product will ignite readily and decompose and hydrogen cyanide. Vapors of this product are heavi gnition and flash back to a leaking or open container. ders should wear eye protection. Structural firefighters quipment. Use a water spray or fog to reduce or direct	ier than air and may travel to smust wear SCBAs and full tvapors. Water may not be				
5.1 5.2 5.3 6.1	Extinguishing Methods:	Water, CO ₂ , When involv and nitrogen a source of in First respon- protective ed effective in a Before clean Equipment. For small s Maximize ve absorbent m local, state a soap. Remo For large sp material (e.g containers for	Halon (if permitted), Dry Chemical ed in a fire, this product will ignite readily and decompose and hydrogen cyanide. Vapors of this product are heavi gnition and flash back to a leaking or open container. ders should wear eye protection. Structural firefighters quipment. Use a water spray or fog to reduce or direct ctually extinguishing a fire involving this product.	RES anup must wear appropriate Personal Protective and protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse. In the protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse. In the protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse. In the protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse. In the protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse. In the protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse.				
5.2	Extinguishing Methods: Firefighting Procedures:	Water, CO ₂ , When involv and nitrogen a source of in First respondence of the color of the colo	Halon (if permitted), Dry Chemical ed in a fire, this product will ignite readily and decompose and hydrogen cyanide. Vapors of this product are heaving into and flash back to a leaking or open container. ders should wear eye protection. Structural firefighters quipment. Use a water spray or fog to reduce or direct ctually extinguishing a fire involving this product. 6. ACCIDENTAL RELEASE MEASUINING any spill or leak, individuals involved in spill clean centilation (open doors and windows) and secure all so aterial and place into appropriate closed container(s) for and federal regulations. Wash all affected areas and outle any contaminated clothing and wash thoroughly before any contaminated clothing and wash thoroughly before ills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unproted or proper disposal. Remove contaminated clothing promispills and cleaning runoffs out of drains, municipal sewers. HANDLING & STORAGE INFORMA	must wear SCBAs and full to vapors. Water may not be reuse. Television of the protective equipment (e.g., goggles, gloves of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse. Television of the protective equipment (e.g., goggles, gloves of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and e reuse. The protective equipment (e.g., goggles, gloves of ignition. Remove spilled material with intervention of the protective equipment (e.g., goggles, gloves of ignition. Remove spilled material with intervention of ignition. Remove spilled material with intervention of the protective equipment (e.g., goggles, gloves of ignition.) The protective equipment (e.g.,				
5.2	Extinguishing Methods: Firefighting Procedures:	Water, CO ₂ , When involve and nitrogen a source of iterative in a sour	Halon (if permitted), Dry Chemical ed in a fire, this product will ignite readily and decompose and hydrogen cyanide. Vapors of this product are heaving and hydrogen cyanide. Vapors of this product are heaving into and flash back to a leaking or open container. It ders should wear eye protection. Structural firefighters are trained by the container of the container of the container of the container. We have a water spray or fog to reduce or direct cually extinguishing a fire involving this product. 6. ACCIDENTAL RELEASE MEASURATION of the container of the con	must wear SCBAs and full to vapors. Water may not be reuse. The disposal and solid diking material to separate reuse. The disposal and solid diking material to separate reuse and open bodies of water. TION The must wear appropriate Personal Protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and ereuse. The must wear SCBAs and full to appropriate Personal Protective and protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with disposal. Dispose of properly in accordance with utside of container with plenty of warm water and ereuse. The must wear SCBAs and full to appropriate Personal Protective and protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material with its interest and interest				
5.2	Extinguishing Methods: Firefighting Procedures: Spills:	Water, CO ₂ , When involv and nitrogen a source of in First respond protective ed effective in a Before clear Equipment. For small si Maximize ver absorbent millocal, state a soap. Remo For large sp material (e.g containers fe water. Keep Avoid prolon local exhaus smoke while Keep this ma closed tightli containers si	Halon (if permitted), Dry Chemical ed in a fire, this product will ignite readily and decompose and hydrogen cyanide. Vapors of this product are heavi gnition and flash back to a leaking or open container. ders should wear eye protection. Structural firefighters quipment. Use a water spray or fog to reduce or direct ctually extinguishing a fire involving this product. 6. ACCIDENTAL RELEASE MEASUI ning any spill or leak, individuals involved in spill clea bills (e.g., < 1 gallon (3.8 L)) wear appropriate persor antilation (open doors and windows) and secure all so aterial and place into appropriate closed container(s) for and federal regulations. Wash all affected areas and ou we any contaminated clothing and wash thoroughly before ills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotect , sand or earth). Transfer liquid to containers for recover or proper disposal. Remove contaminated clothing prom- spills and cleaning runoffs out of drains, municipal sewers HANDLING & STORAGE INFORMA ged contact with the product. Avoid breathing vapors of te to ventilation, fans). After use, wash hands and exposed	RES anup must wear scbas and full tyapors. Water may not be RES anup must wear appropriate Personal Protective and protective equipment (e.g., goggles, gloves burces of ignition. Remove spilled material wired disposal. Dispose of properly in accordance wired trained and container with plenty of warm water are ereuse. At the container with plenty of warm water are another and the container with a spill with intering or disposal and solid diking material to separare and open bodies of water. ATION This product. Use in a well-ventilated location (e.g. diskin with soap and water. Do not eat, drink of the containers slowly on a stable surface. Keep containers sidual amounts of this product; therefore, emp dry location, away from direct sunlight, other light.				

Acute Toxicity

Chronic Toxicity

Suspected Carcinogen:

See Section 4.4

See Section 4.5

No

11.3

11.5

SAFETY DATA SHEET

Page 3 of 6

SDS-035 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 4.2 SDS Revision Date: 4/12/2018 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 8.1 Exposure Limits: ACGIH NOHSC OSHA OTHER ppm (mg/m³) FS-TI V STEL PFI STEL IDLH CHEMICAL NAME(S) PFAK TWA STFI ETHYL CYANOACRYLATE (0.2) NA NF NF NF NA NA NA 8.2 Ventilation & Engineering When working with large quantities of product, provide adequate ventilation (e.g., local exhaust ventilation, fans). 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 4 Eye Protection: Safety glasses with side shields should be used with this product. This product is irritating to the eves. WARNING! THIS PRODUCT WILL BOND SKIN INSTANTLY. Therefore, the use of latex or 8.5 Hand Protection rubber gloves is recommended. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the EU member states. Body Protection: 8.6 WARNING! THIS PRODUCT WILL BOND SKIN INSTANTLY. Therefore, the use of an apron is recommended. 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 Appearance: Clear to slightly yellow liquid; Thixotropic gel 9.2 Odor Sharp, irritating acrylic odor 9.3 Odor Threshold: ND 94 pH: NA 9.5 Melting Point/Freezing Point: ND 9.6 Initial Boiling Point/Boiling > 149 °C (> 300 °F) Range: 97 Flashpoint: < 83 °C (181 °F) TCC 9.8 Upper/Lower Flammability ND Limits: 9.9 Vapor Pressure < 0.2 mm Hg 9 10 Vapor Density > 3 @ 20 °C (68 °F) (Air = 1) Relative Density: 9 11 9.12 Solubility: Insoluble in water 9.13 Partition Coefficient (log Pow): NA 9.14 Autoignition Temperature: ND 9.15 Decomposition Temperature: NA 9.16 Viscosity: Low viscosity Other Information: 9.17 Polymerizes in water 10. STABILITY & REACTIVITY 10.1 Stability Stable under ambient conditions when stored properly (See Section 7, Storage and Handling). If exposed to extremely high temperatures, the products of thermal decomposition may include irritating vapors and 10.2 Hazardous Decomposition Products: carbon oxide gases and hydrogen cyanide (e.g., CO, CO2, HCN). 10.3 Hazardous Polymerization: May occur, if exposed to extremely high temperatures or exposed to moisture. 10.4 Conditions to Avoid: Exposure to or contact with extreme temperatures, strong light sources or incompatible materials. 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). 11. TOXICOLOGICAL INFORMATION Absorption: YES Routes of Entry: Inhalation: YES Ingestion: YES 11.1 Toxicity Data: 11.2 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. This data has not been presented in this document.

SAFETY DATA SHEET

Page 4 of 6 **SDS-035**

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 4.2 SDS Revision Date: 4/12/2018 11. TOXICOLOGICAL INFORMATION - cont'd 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 Physician Recommendations Treat symptomatically. 12. ECOLOGICAL INFORMATION 12.1 Environmental Stability: This product will slowly volatile from soil. Components of this product will slowly decompose into organic compounds. Effects on Plants & Animals: 12.2 There are no specific data available for this product. 12.3 Effects on Aquatic Life There are no specific data available for this product. 13. DISPOSAL CONSIDERATIONS 13 1 Waste Disposal: Waste disposal must be in accordance with federal, state, and local regulations. 13 2 Special Considerations: 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. 49 CFR (GND): **NOT REGULATED** UN3334, AVIATION REGULATED LIQUID, N.O.S. (ethyl cyanoacrylate), 9 (IP VOL ≤ 0.5 L) 14.2 IATA (AIR): IMDG (OCN): 14.3 **NOT REGULATED** TDGR (Canadian GND): 14 4 **NOT REGULATED** ADR/RID (EU): 14.5 **NOT REGULATED** 14.6 SCT (MEXICO): **NOT REGULATED** 14.7 ADGR (AUS): NOT REGULATED * This product may also be shipped as an Excepted Quantity (Inner Package Volume ≤ 30 mL, Total Quantity ≤ 500 mL per Outer Package) 15. REGULATORY INFORMATION SARA Reporting 15.1 This product does not contain any substances subject to SARA Title III, Section 313 reporting requirements. Requirements: SARA Threshold Planning 15.2 There are no specific Threshold Planning Quantities for the components of this product. Quantity: TSCA Inventory Status: 15.3 The components of this product are listed on the TSCA Inventory or are otherwise exempt. 15.4 CERCLA Reportable Quantity (RQ): 15.5 Other Federal Requirements: This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics). Other Canadian Regulations: 15.6 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. 15.7 State Regulatory Information: Ethyl Cyanoacrylate is found on the following state criteria lists: New Jersey Right-to-Know List (NJ). Poly(Methylmethacrylate) is found on the following state criteria list: NJ and Pennsylvania Right-to-Know List (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: 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.

SAFETY DATA SHEET

Page 5 of 6 SDS-035

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

SDS Revision: 4.2

SDS Revision Date: 4/12/2018

		16. OTHER INFORMATION				
Other Information: WARNING! CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS I IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. Do not store near eye drops. Eye irritant. If eye cor occurs, flush immediately with water and seek medical attention. Bonds skin instantly. If skin bonds, do not pull - apart gently using acetone. Avoid contact with fabrics as heat may occur. Keep container tightly closed. P261 – A breathing fume/ mist/vapors/spray. Wash exposed skin areas thoroughly with soap and water after handling. W protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with soap and water. If EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – contrinsing. If skin irritation or a rash occurs – Get medical advice/attention. Store in a well-ventilated place. Keep of 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 & 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				

SAFETY DATA SHEET

Page 6 of 6 SDS-035

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

SDS Revision: 4.2

SDS Revision Date: 4/12/2018

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				

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	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.

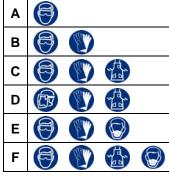
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

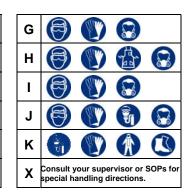
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:









Face Shield & Protective Eyewear









Full Face Respirator Dust & Vapor Half-Mask Respirator Full Face Respirator



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

FLAMMABILI	TY LIMITS IN AIR:
Autoignition	Minimum temperature required to initiate combustion in air with no other source
Temperature	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	FLAMMABILITY
1 Slight Hazard		\ A
2	Moderate Hazard	REACTIVITY
3	Severe Hazard	
4	Extreme Hazard	
ACD	Acidic	1 2
ALK	Alkaline	
COR	Corrosive	/ \ \ \ \ \
W	Use No Water	HEALTH
ох	Oxidizer	SPECIAL
TREFOIL	Radioactive	PRECAUTIONS

TOXICOLOGICAL INFORMATION:

LD ₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals		
LC ₅₀	Lethal concentration (gases) which kills 50% of the exposed animal		
ppm	Concentration expressed in parts of material per million parts		
TD _{io}	Lowest dose to cause a symptom		
TCLo	Lowest concentration to cause a symptom		
TD _{Io} , LD _{Io} , & LD _o or	Lowest dose (or concentration) to cause lethal or toxic effects		
TC, TC _o , LC _{io} , & LC _o			
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 Kow or log Koc	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	NDSL Canadian Non-Domestic Substance List			
PSL	PSL Canadian Priority Substances List			
TSCA	TSCA U.S. Toxic Substance Control Act			
EU	European Union (European Union Directive 67/548/EEC)			
WGK	WGK Wassergefährdungsklassen (German Water Hazard Class)			

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

	0	(*)	((3)	\odot	(4)		
	Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
ĺ	Compress ed	Flammabl e	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

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

			\Diamond			_		1
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment