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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards

SDS Revision: 1.0

SDS Revision Date: 3/4/2015

	1. PRODUCT & COMPANY IDENTIFICATION					
1.1	Product Name:	CLEARFIX SPRAY CLEANER – CCL				
1.2	Chemical Name:	Isopropanol Solution				
1.3	Synonyms:	CCL				
1.4	Trade Names:	Clearfix Spray Cleaner - CCL				
1.5	Product Use:	Cleaner for acrylic & polycarbonate aircraft windows. For use with Clearfix Aviation Window Restoration System.				
1.6	Distributor's Name:	Clearfix Aerospace, Inc.				
1.7	Distributor's Address:	3960 W Point Loma Blvd, Suite H369, San Diego, CA 92110 USA				
1.8	Emergency Phone:	+1 (619) 297-3678				
1.9	Business Phone / Fax:	+1 (619) 297-3678				

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 and ADG Code (Australia).

WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. MAY CAUSE DIZZINESS OR DROWSINESS.

Classification: Skin Sens. 1B; STOT SE 3

<u>Hazard Statements</u> (H): H317 – May cause an allergic skin reaction. H336 – May cause drowsiness or dizziness.

Precautionary Statements (P): P261 – Avoid breathing fume/mist/vapors/spray. P271 – Use only in a well-ventilated area. P272 – Contaminated clothing should not be allowed out of the workplace. P280 – Wear protective gloves/eye protection. P302+P352 – IF ON SKIN: Wash with soap and warm water thoroughly after handling. P321 – For specific first aid treatment (see section 4 of this Safety Data Sheet). P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P362+P364 – Take off contaminated clothing and wash it before reuse. P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 – Call a POISON CENTER/doctor if you feel unwell. P403+P233 – Store in a well ventilated place. Keep container tightly closed. P405 – Store locked up. P501 Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF).



3. COMPOSITION & INGREDIENT INFORMATION

		EXP					EXPO	EXPOSURE LIMITS IN AIR (mg/m³)					
					AC	GIH		NOHSC			OSHA		
					pp	m		ppm			ppm		
CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	ES- TWA	ES- STEL	ES- PEAK	PEL	STEL	IDLH	OTHER
WATER	7732-18-5	ZC0110000	231-791-2	60-100	NA	NA	NF	NF	NF	NA	NA	NA	
WATER													
ISOPROPANOL	67-63-0	NT8050000	200-661-7	1-5	400	500	400	500	NF	400	500	2000	400 TWA
ISOFROFANOL	Flam. Liq. 2; SI	kin Irrit. 3; Eye Irri	t. 2A; STOT SE	3; H225, H	316, H	319							
SURFACTANT	NA	NA	NA	0.5-1.5	NA	NA	NF	NF	NF	NA	NA	NA	
SURFACIANT													
METHYL P-HYDROXYBENZOATE	99-76-3	DH2450000	202-785-7	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA	
METHET THE NOXTBENZOATE													

4 FIRST AID MEASURES

			4. FIRST AID MEASURES
4.1	First Aid:	Ingestion:	If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.
		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.
		<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.
		Inhalation:	Remove victim to fresh air at once.
4.2	Effects of Exposure:	Ingestion:	Abdominal pain, stomach upset, nausea, vomiting and diarrhea.
		Eyes:	Irritating to the eyes.
		Skin:	Contact with the skin during product use is not expected to result in significant irritation. However, may cause an allergic reaction in some sensitive individuals.
		Inhalation:	Irritation to the nose, throat and other tissues of the respiratory system.



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CFA-CCL SDS Revision: 1.0 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 3/4/2015 4. FIRST AID MEASURES - cont'd 4.3 Symptoms of Overexposure: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Ingestion: Irritating to the eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or Eyes: hazy vision. Skin: Contact with the skin during product use is not expected to result in significant irritation. Signs/symptoms may include localized redness, itching, drying and cracking of skin. However, may cause an allergic reaction in some sensitive individuals. Allergic skin reaction (non-photo induced) signs/symptoms may include redness, swelling, blistering, and itching. Inhalation: Vapors of this product may be slightly irritating to the nose, throat and other tissues of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness 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, central nervous system (CNS) Medical Conditions Aggravated by 4.7 Pre-existing dermatitis, other skin conditions, and disorders of **HEALTH** 1 Exposure the target organs (eyes, skin, and respiratory system). **FLAMMABILITY** 0 PHYSICAL HAZARDS 0 PROTECTIVE EQUIPMENT В **EYES** SKIN 5. FIREFIGHTING MEASURES 5.1 Fire & Explosion Hazards: If involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., CO, CO₂, NO_x). Extinguishing Methods: Water Fog, CO₂, Halon (if permitted), Dry Chemical, Foam 52 5.3 Firefighting Procedures: 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. 6. ACCIDENTAL RELEASE MEASURES 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 (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. 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. 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., bentonite, vermiculite, or commercially available inorganic absorbent material). Transfer liquid to

out of municipal sewers and open bodies of water. 7. HANDLING & STORAGE INFORMATION

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid Work & Hygiene Practices: breathing of vapors, mists or spray. Avoid prolonged or repeated skin contact. Wash hands after handling, and before eating. Avoid breathing of dust created by sanding, grinding or machining. When polishing with product, 72 Storage & Handling: Keep containers sealed at all times, store in well-ventilated area. Keep from freezing. Provide appropriate local exhaust ventilation on open containers. When using keep the product moist at all times. 7.3 Special Precautions: Use in an enclosed process area is recommended. Use in a well-ventilated area. Do not use in a confined area or areas with little or no air movement.

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



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		EXPOSURE CONTI			JONA		OIL	<u> </u>			1
8.1	Exposure Limits: ppm (mg/m³)		AC	GIH	ES-	NOHSC ES-	ES-		OSHA	ı	OTHER
	ppin (mg/m)	CHEMICAL NAME(S)	TLV	STEL	TWA	STEL	PEAK	PEL	STEL	IDLH	
		ISOPROPANOL	400	500	400	500	NF	400	500	2000	400 TWA
8.2	Ventilation & Engineering Controls:	Provide appropriate local ext									
		Use in an enclosed process		mmended	d. Use in	a well-v	entilate/	d area. D	o not u	ise in a c	onfined area
0.0	Respiratory Protection:	areas with little or no air move								. 1	
8.3	Respiratory Protection.	Avoid breathing of vapors, mitypical circumstances of use									
		authorized per U.S. OSHA's									
		regulations, or the appropria									
		Australia.		, o. oa	, i	p. 0	0, 2.0.		otatoo,		
8.4	Eye Protection:	Avoid eye contact. Wear	safety glass	ses. If	necessa	ry, refer	to U.S	S. OSHA	29 CI	FR 🧟	
		§1910.133, Canadian standa								FR 6	
8.5	Hand Protection:	Avoid skin contact. Select a	nd use glove	es and/or	protecti	ve cloth	ing to p	revent sk	in conta	act	
		based on the results of an e									A
		clothing manufacturer for sell the following material(s) are									
		29 CFR §1910.138, the appro								ПА	
8.6	Body Protection:	No special body protection is								If	
	,	necessary, refer to appropriat									
		,,,						,		ı	
		9. PHYSICAL	& CHEN	IICAL	PRO	PERT	IES				
9.1	Appearance:	Off-white liquid									
9.2	Odor:	Little or no odor									
9.3	Odor Threshold:	NA									
9.4	pH:	NA									
9.5	Melting Point/Freezing Point:	0 °C (32 °F)									
9.6	Initial Boiling Point/Boiling Range:	100 °C (212 °F)									
9.7	Flashpoint:	NA									
9.8	Upper/Lower Flammability Limits:	NA									
9.9	Vapor Pressure:	17.5 mm @ 25 °C (77 °F)									
9.10	Vapor Density:	1.1 (Air = 1.0)									
9.11	Relative Density:	1.20									
9.12	Solubility:	Complete									
9.13	Partition Coefficient (log Pow):	NA									
9.14	Autoignition Temperature:	NA									
9.15	Decomposition Temperature:	NA									
9.16	Viscosity:	1 cPs									
9.17	Other Information:	VOC: 29 g/L									
						· · · ·		· · · ·			
		10. STAI	BILITY 8	REA	CTIV	ITY					
10.1	Stability:	Stable.									
10.2	Hazardous Decomposition Products:	If exposed to extremely high temperatures, the products of thermal decomposition may include irritation vapors and nitrogen and carbon oxide gases (e.g. NO _x , CO, CO ₂).									
10.3	Hazardous Polymerization:	Hazardous polymerization wil		, , ,							
10.4	Conditions to Avoid:	None known.									
	Incompatible Substances:	None known.									



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SAFETY DATA SHEET

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SDS Revision Date: 3/4/2015 11. TOXICOLOGICAL INFORMATION Inhalation: YES Routes of Entry: 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 4.6 Suspected Carcinogen: 11.5 NA 11.6 Reproductive Toxicity: This product is not reported to cause reproductive toxicity in humans Mutagenicity: This product is not reported to cause mutagenic effects in humans. **Embryotoxicity**: This product is not reported to cause 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 4.4 11.8 Biological Exposure Indices: NA Physician Recommendations: 11.9 Treat symptomatically. 12. ECOLOGICAL INFORMATION There are no specific data available for this product. 12.1 Environmental Stability: 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 appropriate Federal, state, and local regulations. 13.2 Special Considerations: Reclaim product if feasible. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste. 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** 14.2 IATA (AIR): **NOT REGULATED** IMDG (OCN): 14.3 **NOT REGULATED** 14.4 TDGR (Canadian GND): **NOT REGULATED** 14.5 ADR/RID (EU): **NOT REGULATED** 14.6 SCT (MEXICO): **NOT REGULATED** 14.7 ADGC (AUS): **NOT REGULATED**



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	15. REGULATORY INFORMATION							
15.1	SARA Reporting Requirements:	This product does not contain any substance	es subject to SARA Title III, section 313 reporting requirements.					
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Qu	antities 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 does not contain any substance	es identified as Hazardous Air Pollutants (HAPs).					
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the MSDS 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 Class D2B (Other Toxic Effects)						
15.7	State Regulatory Information:	Isopropanol is found on the following state criteria lists: California Hazardous Substances List (CA), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), Pennsylvania Right-to-Know List (PA), and Washington Permissible Exposures List (WA). 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),						
15.8	Other Requirements:	Wisconsin Hazardous Substances List (WI). The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC: Irritant (Xi). Risk Phrases (R):36/38 – Irritating to eyes and skin. Safety Phrases (S): 2-26-28-36/37/39-45 – Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, was immediately with plenty of soap and water. Wear suitable protective clothing, gloves and eye/face protection. If swallowed, seek medical advice immediately and show this container or label.						
		16. OTHER INFO	DRMATION					
16.1	Other Information:	WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. MAY CAUSE DIZZINESS OR DROWSINESS. Avoid breathing fume/mist/vapors/spray. Use only in a well-ventilated area. Contaminated clothing should not be allowed out of the workplace. Wear protective gloves/eye protection. IF ON SKIN: Wash with soap and warm water thoroughly after handling. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Store in a well ventilated place. Keep container						
16.2	Terms & Definitions:	tightly closed. Store locked up. KEEP OUT	OF REAGINGS OF STREET,					
16.3	Disclaimer:	See last page of this Safety Data Sheet. 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 & Clearfix Aerospace'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:	Clearfix Aerospace, Inc. 3960 W Point Loma Blvd Suite H369 San Diego, CA 92110 USA Tel: +1 (619) 297-3678 http://www.clearfixaerospace.com	CLEARFÎX° AEROSPACE					
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	ShipMate Dangerous Goods Training & Consulting					



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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:

EXPOSURE	EXPOSURE LIMITS IN AIR:					
ACGIH American Conference on Governmental Industrial Hygienists						
TLV Threshold Limit Value						
OSHA	U.S. Occupational Safety and Health Administration					
OSHA	U.S. Occupational Safety and Health Administration					

FIRST AID M	FIRST AID MEASURES:					
	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:

CAS No. | Chemical Abstract Service Number

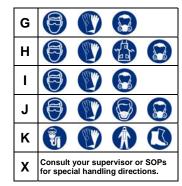
PEL Permissible Exposure Limit IDLH Immediately Dangerous to Life and Health

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

HEALTH **FLAMMABILITY PHYSICAL HAZARDS** PERSONAL PROTECTION

PERSONAL PROTECTION RATINGS:

Α		
В		
С	(E)	
D		
Е	(E)	
F		











Synthetic Apron

& Full Suit

Dust Respirator

Full Face Respirator



Full Face Respirator

Airline Hood/Mask or SCBA

OTHER STANDARD ABBREVIATIONS:

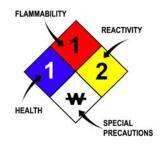
NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus
Flam.	Flammable
Liq.	Liquid
Sol.	Solid
Tox.	Toxicity
Irrit.	Irritation
Sens.	Senitization
Ox.	Oxidizing
Corr.	Corrosion
Repr.	Reproductive (Harm)
Asp.	Aspiration
Inh.	Inhalation
Dam.	Damage
STOT SE	Specific Target Organ Toxicity – Single Exposure
STOT RE	Specific Target Organ Toxicity – Repeated Exposure

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILI	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
ОХ	Oxidizer
TREFOIL	Radioactive



TOXICOLOGICAL INFORMATION:

LD ₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
	S
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 _{lo} , LD _{lo} , & LD _o or	Lowest dose (or concentration) to cause lethal or toxic effects
TC, TCo, LCio, & LCo	
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:

0	(<u>(1)</u>		\odot	(1)		R
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:

		M	*	8	Q	X	X
С	E	F	N	0	Т	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

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	Environ- ment