

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

MSDS Revision: 1.4

MSDS Revision Date: 12/12/14

	1. PRODUCT IDENTIFICATION												
1.1	Product Name:	G SWAB	S										
1.2	Chemical Name: ISOPROPANOL												
1.3	Synonyms: ALCOHOL												
1.4	Trade Names: P/N 47362; P/N	105909-059); P/N 105909G-0	057									
1.5	Product Use: PROFESSIONA	L USE ONLY											
1.6	Manufacturer's No ZEBRA TECHNO		ORPORATION										
1.7	Manufacturer's Ac	dress:	PARKWAY, VER	NON HILLS, IL &	50061 USA								
1.8	Emergency Phone PERS: +1 (80	:		·									
1.9	Business Phone: +1 (847) 793-6												
	· · (0 4 7)773-0												
				2. HA	ZARD IDEN	NTIFIC	ATION						
2.1	Hazard Identification: This product consists of different sized plastic foam swabs that are saturated with 1-4 ml of isopropanol and sealed in foil packages. The information on health and physical hazards of the product is related to the Isopropanol. This product is classified as a hazardous substance and as dangerous goods according to the classification criteria of NOHSC and ADG Code (Australia). FLAMMABLE. Australia HazChem Code: 2Y.												
2.2	Routes of Entry:			Inhalation:	YES	A	osorption	:	YES		Ingestic	on:	YES
2.3	Effects of Exposure: INGESTION: If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression. EYES: Vapor is discomforting to the eye. Splashes may cause severe eye irritation, possible corneal burns and eye damage. Symptoms of overexposure may include redness, itching, irritation and watering. SKIN: May be irritating to skin, especially after prolonged or repeated contact. INHALATION: Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. Inhalation of concentrated vapors can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea). Odor may give some warning of exposure, but odor fatigue may occur.												
2.4	Symptoms of Overexposure: EYES: Overexposure in eyes may cause severe eye irritation, possible corneal burns, and eye damage. SKIN: Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.												
2.5	Acute Health Effects: EYES: Severe irritation to eyes near affected areas. SKIN: Mild to moderate irritation to skin near affected areas. INHALATION: High concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.												
2.6	Chronic Health Effects: None known.												
2.7	7 Target Organs: Eyes, skin & respiratory system.												
L													
			3. CO	MPOSITIO	N & INGR	EDIEN	<u>T INFC</u>	RMA	TION	1			
	EXPOSURE LIMITS IN AIR (mg/m³)												
							ACGIH	- ppm	0	SHA - p	pm		OTHER
ļ	CHEMICAL NAME(S) CAS No.		CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	PEL	STEL	IDLH	TWA – S	TEL (NOHSC)
ISOPI	ROPANOL		67-63-0	NT8050000	200-661-7	≤ 100.0	500	750	1000	NE	NE	400 – 5	600
	= Not Available; E: all WHMIS rea					-							ms Used



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4. FIRST AID MEASURES

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4.1	First Aid: INGESTION: EYES: SKIN: INHALATION:	INGESTION: DO NOT INDUCE VOMITING. Contact ChemTrec at +1 (703) 527-3887 or the nearest Poison Control Center or local emergency telephone number for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. EYES: If product gets in the eyes, immediately flush with copious amounts of lukewarm water for at least 15 minutes. Open and close eyelid(s) to ensure thorough irrigation. Seek immediate medical attention.				
4.2		00 / 1	ions, and disorders of the target or	aans (eves s	kin respiratory system)	
	The existing u			<u>gans (0)00,0</u>		
			5. FIREFIGHTING ME	ASURES		
5.1	Flashpoint & Method: 11.6 °C (53 °F), TCC					
5.2	Autoignition Temp 398.8 °C (750					
5.3	Flammability Limits	:	Lower Explosive Limit (LEL):	2.0%	Upper Explosive Limit (UEL):	12.7%
5.4	decompose te	s an extremely flammable o form toxic gases (e.g., C	e liquid. When involved in a fire, O, CO2, NOx).	, this produc	t may ignite and	
5.5		Extinguishing Methods: Alcohol Foam, CO ₂ , Dry Chemical				
5.6	Firefighting Procedures: First responders should wear eye protection. Structural fire fighters must wear full protective equipment and MSHA/NIOSH-approved self-contained breathing apparatus. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. If necessary, rinse contaminated equipment with soapy water before returning to service.					
			6. ACCIDENTAL RELEAS	E MEASU	RES	
6.1	Spills:	•				
	Before cleaning	ng any spill or leak, individ	uals involved in spill cleanup must	wear approp	priate Personal Protective Equipm	ient.
	(open doors appropriate c	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For small spills (e.g., <1.0 gallon-3.785 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				

For spills ≥ 1 gallon, deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Use ONLY non-sparking tools for recovery and cleanup. 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 municipal sewers and open bodies of water.

7. HANDLING & STORAGE INFORMATION

7.1 Work & Hygiene Practices:
 Avoid prolonged contact with this material. Avoid breathing the vapors generated by this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). Wash exposed skin thoroughly with plenty of soap & water after using this product. Do not eat, drink, or smoke while handling this product.
 7.2 Storage & Handling:

/.2	storage a right ling.
	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Keep away from excessive heat, open flames, sparks, and other possible sources of ignition. Keep away from incompatible materials listed in Section 10. Do not store in
	damaged or unmarked containers or storage devices. Keep containers securely closed when not in use. Open slowly on a level, stable surface. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with
	care. As a precaution against exposure to the eyes, nose, throat and face, this product should not be stored higher than waist level. Keep away from children at all times!
7.3	Special Precautions:

7.5	special riecaulions.
	None.

before reuse.



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ZTC-0008 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 1.4 MSDS Revision Date: 12/12/14 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 8.1 Ventilation & Engineering Controls: Use with adequate ventilation (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station). Use in a chemical fume hood when working with large quantities of product and provide adequate ventilation (e.g., local exhaust ventilation, fans). 8.2 Respiratory Protection: No special respiratory protection is required under typical circumstances of use or handling. In instances where vapors or sprays of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia. 8.3 Eve Protection: Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling this product. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants. 8.4 Hand Protection: None required under normal conditions of use. When handling large quantities (e.g., ≥ 1 gallon), wear rubber or impervious plastic aloves. 8.5 Body Protection: HEALTH 1 No apron required when handling small quantities. **FLAMMABILITY** 3 When handling large quantities (e.g., \geq 1 gallon), eye wash stations and deluge showers should be available. Upon completion of work activities involving large REACTIVITY 0 quantities of this product, wash any exposed areas thoroughly with soap and water. **PROTECTIVE EQUIPMENT** В **EYES** SKIN 9. PHYSICAL & CHEMICAL PROPERTIES 0.786 - 0.788 @ 20 °C 9.1 Density: 9.2 Boiling Point: 108.0 °C (226.4 °F) 9.3 Melting Point: -88.0 °C (-126.4 °F) 9.4 Evaporation Rate: 2.9 (n-BuAc=1) 9.5 Vapor Pressure 33.0 mm Hg @ 20.0 °C 9.6 Molecular Weight: 60.09 9.7 Appearance & Color: Clear liquid, alcohol-like odor. 9.8 Odor Threshold: NE 99 Solubility: Miscible 9.10 NA pН 9.11 Viscosity: 2.08 cSt (25°C) 9.12 Other Information: Vapor Density = 2.07 (Air = 1) **10. STABILITY & REACTIVITY** 10.1 Stability: Stable under normal conditions of use (see section 7). 10.2 Hazardous Decomposition Products: Irritating vapors and toxic gases (e.g., carbon monoxide and carbon dioxide) when involved in fire. Hazardous Polymerization: 10.3 Will not occur. 10.4 Conditions to Avoid: Exposure or contact to extreme temperatures, incompatible chemicals, strong light sources, sparks, flame. 10.5 Incompatible Substances: Strong oxidizers, chlorine, peroxides or strong acids.



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		11. TOXICOLOGICAL INFORMATION			
11.1		sted on animals to obtain toxicology data. There are toxicology data for the com lerature. These data have not been presented in this document.	ponents of the product,		
11.2	Acute Toxicity: See section 2.5				
11.3	Chronic Toxicity:				
	See section 2.6				
11.4	Suspected Carcinogen: This product contains Isopropy	yl Alcohol, which is not carcinogenic to humans but is listed as a Group 3 carcinog	en by the IARC.		
11.5	Reproductive Toxicity:				
	NE				
	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.			
11.6	Irritancy of Product:				
11.7	See section 2.3 Biological Exposure Indices:				
11.7	40 mg/L (acetone in urine)				
11.8	Physician Recommendations:				
	Treat symptomatically.				
		12. ECOLOGICAL INFORMATION			
12.1	Environmental Stability: This product will slowly volatilize from soil. Components of this product will slowly decompose into organic compounds.				
12.2					
	There is no specific data avail	able for this product.			
12.5	12.3 Effects on Aquatic Life: Releases of large volumes may be harmful or fatal to overexposed aquatic life. Aquatic toxicity data for components of this product include: LC ₅₀ (Daphnia magna) 24 hours = 9,500 mg/L; LC ₅₀ (Brachionus calyciflorus) 24 hours = 28,600 mg/L; LC ₅₀ (Crangon crangon brown shrimp) 48 hours = 1,400 mg/L; LC ₅₀ (Crangon crangon brown shrimp) 98 hours = 1,150 mg/L; LC ₅₀ (goldfish) 24 hours = > 500 mg/L.				
		13. DISPOSAL CONSIDERATIONS			
13.1	Waste Disposal: Dispose in accordance with local, state and Federal hazardous waste laws.				
13.2	Special Considerations:				
	U.S. EPA Characteristic Waste: D001 (ignitable)				
		14. TRANSPORTATION INFORMATION			
		proper shipping name, hazard class & division, packing group) is shown for each r	node of transportation.		
		nay be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR. in less than 10 mL of free-flowing liquid			
14.1	•	FLAMMABLE LIQUIDS, N.O.S. (ISOPROPANOL), 4.1, II, LTD QTY			
14.2	EXCEPTED FROM REGULATION PER 49 CFR 172.102, SPECIAL PROVISION 47 IATA (AIR): UN3175, SOLIDS CONTAINING FLAMMABLE LIQUIDS, N.O.S. (ISOPROPANOL), 4.1, II, LTD QTY				
140	EXCEPTED FROM REGULATION PER IATA DGR 3.4, SPECIAL PROVISION A46				
14.3	IMDG (OCN): UN3175, SOLIDS CONTAINING FLAMMABLE LIQUIDS, N.O.S. (ISOPROPANOL), 4.1, II, LTD QTY EXCEPTED FROM REGULATION PER IMDG CODE 3.3, SPECIAL PROVISION 216				
14.4	TDGR (Canadian GND): UN3175, SOLIDS CONTAINING FLAMMABLE LIQUIDS, N.O.S. (ISOPROPANOL), 4.1, II, LTD QTY EXCEPTED FROM REGULATION PER TDGR, SPECIAL PROVISION 16, 56				
14.5	EXCEPTED FROM REGULATION	FLAMMABLE LIQUIDS, N.O.S. (ISOPROPANOL), 4.1, II, LTD QTY, ADR PER ADR, SPECIAL PROVISION 216			
14.6		NE LIQUIDOS INFLAMABLE, N.E.P. (ISOPROPANOL), 4.1, II, CANTIDAD LIMITADA PER NOM-002-2003, SPECIAL PROVISION 216			
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	15. REGULATORY INFORMATION				
15.1	SARA Reporting Requirements:				
	SARA 313 (Isopropanol)				
15.2	SARA Threshold Planning Quantity: NA				
15.3	TSCA Inventory Status:				
	All components of this product are listed in the TSCA Inventory or are exempt.				
15.4	CERCLA Reportable Quantity (RQ):				
15.5	NA Other Federal Requirements:				
15.5	NA				
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. Class B2 Flammable Liquid.				
15.7	State Regulatory Information: Isopropanol is listed on the following state Right-to-Know lists: California, Massachusetts, Minnesota, Pennsylvania. No component of this mixture is listed in the California Proposition 65 Lists.				
15.8	67/548/EEC (European Union) Requirements: The primary component of this product is not listed in Annex I of EU Directive 67/548/EEC: <u>Isopropano</u> I: Flammable, Irritant (F, XI). R: 11-36/37 – Highly flammable. Irritating to eyes and respiratory system. S: 2-7-16-24/25/26 – Keep out of the reach of children. Keep container tightly closed. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.				
	16. OTHER INFORMATION				
16.1	Other Information:				
	WARNING: Follow directions precisely for use. FLAMMABLE! Keep away from heat or flame. Harmful if swallowed! KEEP OUT OF REACH OF CHILDREN . If redness or other signs of adverse reaction occur, discontinue use immediately.				
16.2	Terms & Definitions:				
	See last page of this MSDS.				
16.3	Disclaimer: This Material 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 & Zebra Technologies' knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.				
16.4	Prepared for: Zebra Technologie Corporation 333 Corporate Woods Parkway Vernon Hills, IL 60061 +1 (847) 793-2600 phone +1 (847) 913-8760 fax http://www.zebra.com/				
16.5	Prepared by: ShipMate, Inc. 18436 Hawthorne Boulevard, Suite 201 Torrance, CA 90504 +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com/				



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DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

CAS No. Chemical Abstract Service Number

EXPOSURE LIMITS IN AIR:

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

FIRST AID MEASURES:

CPR Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.

HEALTH

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard	FLAMMABILITY
1	Slight Hazard	
2	Moderate Hazard	REACTIVITY
3	Severe Hazard	
4	Extreme Hazard	PERSONAL PROTECTION
		NEDIL44T UNPCA Printed by Labelmaster, A.American Labelmark Co., Olicago, IL 6064
PER	SONAL PROTECTION RATINGS:	

0 S Α G в н ı С D J Е κ Consult your supervisor or S.O.P. F х for special handling directions. È Face Shield & Safety Glasses Splash ggles Eye Protection **Dust Respirator** Boots Synthetic Apron Full Suit 9 to b OYO 000 Full Face Dust & Vapor Airline Vapor Respirator Respirator Hood/Mask or Respirator

Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.

FLAMMABILITY LIMITS IN AIR:

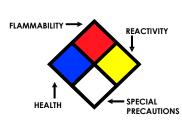
Autoignition Minimum temperature required to initiate combustio		
Temperature	e with no other source of ignition	
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source	
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source	

OTHER STANDARD ABBREVIATIONS:

NA	Not Available	
NR		
NE	Not Established	
ND	Not Determined	
ML	Maximum Limit	
SCBA	SCBA Self-Contained Breathing Apparatus	

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA 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



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 _{lo}	Lowest dose to cause a symptom	
TCLo	Lowest concentration to cause a symptom	
TD _{I0} , LD _{I0} , & LD ₀ Or TC, TC ₀ , LC _{I0} , & LC ₀	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	
TLm	Median threshold limit	
-	Median meshold in m	

REGULATORY INFORMATION:

CPR	Canada's Controlled Product Regulations
DOT	U.S. Department of Transportation
DSL	Canadian Domestic Substance List
EPA	U.S. Environmental Protection Agency
EU	European Union (European Union Directive 67/548/EEC)
NDSL	Canadian Non-Domestic Substance List
NOHSC	Australia National Occupational Health & Safety Code
PSL	Canadian Priority Substances List
TC	Transport Canada
TSCA	U.S. Toxic Substance Control Act
WHMIS	Canadian Workplace Hazardous Material Information System
EC INFORM	ATION:

T.		*	Ł		Š	×	(X	
С	E	F	Ν	0	T+	Xi		
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful	
WHMIS INFORMATION:								

\oslash	۲	۲	۲	()	۲		
Α	В	С	D1	D2	D3	E	
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Orrosive	