CHIPQUIK® Silicone Adhesive Sealant

Safety Data Sheet (SDS)

www.chipquik.com

To comply with European CLP Regulation 1272/2008

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME:	Chip Quik Silicone Adhesive Sealant: EGS, NCS
SYNONYMS:	Silicone
PART NUMBERS:	EGS10B, EGS10W, NCS10B, NCS10W, NCS10G, EGS10B-20G, EGS10W-20G, NCS10B-20G, NCS10W-20G, NCS10G-20G

1.2 Relevant identified uses of the substance or mixture and uses advised against

PRODUCT USE:	RTV rubber, for electrical, electronic, and general industry gluing, sealing, insulating, encapsulating.

1.3 MANUFACTURER:	Chip Quik Inc.
ADDRESS:	3rd Floor, 207 Regent Street, London W1B 3HH (UK and EU)
PHONE:	(508) 477-2264
1.4 EMERGENCY PHONE:	+44 20 3868 7152 (UK and EU 24/7)

REVISION DATE:	2022/10/13
REVISION NUMBER:	EU1.8
REVISED BY:	Chip Quik Product Safety

2. HAZARD IDENTIFICATION

2.1 Classified in accordance with European CLP Regulation 1272/2008

Aquatic Acute	1
Aquatic Chronic	1
Serious eye damage/eye irritation	2
Skin sensitization	1
Reproductive toxicity (fertility)	2
Specific target organ toxicity, repeated exposure (Cardiovascular/ Hematological: hematopoiesis)	2

Acute and delayed effects:	Dermatitis, rash, severe eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision. May cause an allergic skin reaction. Prolonged exposure may cause chronic effects.

CHEMICAL NAME:	NA
CHEMICAL FAMILY:	Mixture
CHEMICAL FORMULA:	Proprietary

ROUTES OF ENTRY: Inhalation, Ingestion, Skin/Eye Contact

TARGET ORGANS:NA

GHS/CLP:

Signal Word: Danger

GHS/CLP LABEL ELEMENTS:

Hazard statement(s)	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.

Precautionary statement(s)	
P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.

P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapor/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.
P301/P330/P331/P310	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately call a POISON CENTER/Doctor.
P303/P361/P352/P333/P313	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with soap & water. Get medical advice/attention if skin irritation or rash occurs or if you feel unwell.
P304/P340/312	IF INHALED: Remove victim to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305/P351/338/P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON CENTER/Doctor.
P308/P313	IF EXPOSED OR CONCERNED: Get medical advice/attention.
P342/P311	IF EXPERIENCING RESPIRATORY SYMPTOMS: Call POISON CENTER/Doctor.
P362	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P402/P404	Store in a dry place. Store in a closed container.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

OTHER HAZARDS:
None known.

SECTION 2 NOTES:
Chip Quik Inc. does not recommend, manufacture, market, or endorse any of its products for human consumption.

Chronic Toxicity-Proposition 65, State of California: ⚠ WARNING! This product can expose you to Carbon Black and Titanium Dioxide, which are known to the State of California to cause Cancer. For more information, go to www.P65Warnings.ca.gov. These materials are embedded in the product and are not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Classified in accordance with European CLP Regulation 1272/2008

Hazardous Ingredients (1)	C.A.S. Number	Weight Percent	OSHA PEL mg/m^3	ACGIH TLV TWA mg/m^3	LD 50 Ingested g/Kg	LD 50 Inhaled g/m^3
Methyl Oxime Silane	Proprietary	1-3	NE	NE	NE	NE
Vinyl Oxime Silane	Proprietary	0-1	NE	NE	NE	NE
Alkoxy Silane	Proprietary	0-1	NE	NE	NE	NE
Carbon Black	1333-86-4	0-0.2	NE	NE	NE	NE
Titanium Dioxide	13463-67-7	0-1	NE	NE	NE	NE
Methyl Ethyl Ketoxime	96-29-7	0-1	NE	NE	NE	NE
Octa Methyl Cyclo Tetra Siloxane	556-67-2	0-1	NE	NE	NE	NE

SECTION 3 NOTES:
(1) Per 29 CFR 1910 the mixture has not been tested as a whole. All hazardous components, which comprise 1% of the mixture (0.1% carcinogenic), are listed. Percentages of individual components are not listed as this information is considered a trade secret.

4. FIRST-AID MEASURES

Emergency first aid procedures:

EYES: Flush with plenty of water, contact a physician. If contact lenses can be removed easily, flush eyes without contact lenses.

SKIN: Wash affected area with plenty of warm, soapy water. If irritation persists, seek medical attention.

INGESTION: Call a physician or Poison Control Center immediately. Do not induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person

INHALATION: Remove to fresh air. Support respiration if required. If not breathing, seek immediate medical attention.

5. FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:	Dry chemical, foam Alcohol-resistant foam Carbon Dioxide (CO2) Water Spray
SPECIAL FIRE FIGHTING PROCEDURES:	Use NIOSH-approved self-contained Breathing Apparatus and full protective clothing if involved in a fire. Move containers from fire area if you can do so without risk.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	May release toxic oxides, nitrogen oxides (corrosive), formaldehyde.

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS AND EQUIPMENT: Material is extremely thick and will not flow out.

ACCIDENTAL RELEASE MEASURES: If material spills or leaks use a spatula to collect and place it in a plastic or glass jar. Ensure adequate ventilation. Remove traces of residue using cloth rags or paper towels. Follow on-site personal protective equipment recommendations. Eliminate sources of ignition.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Collect spillage.

SECTION 6 NOTES:
See Sections 2, 4, and 7 for additional information.

7. HANDLING AND STORAGE

HANDLING/STORAGE: Keep containers tightly closed when not in use. Use care to avoid spills. Avoid inhalation of fumes or dust. Avoid contact with eyes, skin, and clothing. Store in a closed corrosive resistant container, with corrosive resistant liner, in cool dry place. Wear appropriate personal protective equipment when working with or handling. Always wash hands thoroughly after handling this product. Dispose of following Federal, State/Provincial, and Local regulations.

OTHER PRECAUTIONS: Empty containers may retain product residues in vapor, liquid, and/or solid form. All labeled hazard precautions should be observed.

WORK HYGIENIC PRACTICES: Cosmetics/Food/Drink/Tobacco should not be consumed or used in work areas. Always wash hands after handling material and before applying or using cosmetics/food/drink/tobacco.

SECTION 7 NOTES:
Keep out of reach of children.
Not for internal consumption.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Exposure Limits
Methyl Ethyl Ketoxime	WEEL: 36 mg/m^3 TWA, 10 ppm
	Vendor: 10 ppm STEL; 3 ppm TWA

Also see section 3.

ENGINEERING CONTROLS: Use only with production equipment designed for use with silicone.

VENTILATION: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLVs.

RESPIRATORY PROTECTION: A (US: NIOSH; EU: EN 140:1998, EN 14387:2004 A) approved air-purifying respirator with fume/organic chemical cartridge should be worn when airborne concentrations may be exceeded. General and local exhaust ventilation is the preferred means of protection.

EYE PROTECTION: Use with appropriate eye protection: Goggles or face shield (EU: EN 166-S 3 9).

SKIN PROTECTION: Protective gloves should be worn when the possibility of skin contact exists (EU: EN 374-1:2003).

PROTECTIVE CLOTHING OR EQUIPMENT: Work clothes should be worn and laundered in accordance with current standards (US: OSHA).

WORK HYGIENIC PRACTICES: Cosmetics/Food/Drink/Tobacco should not be consumed or used in areas where solder products may be used. Always wash hands after handling soldering products and before applying or using cosmetics/food/drink/tobacco.

OTHER: Maintain eye wash stations in work areas. Avoid the use of contact lenses in high fume areas. Clean protective equipment regularly. Clean up spills immediately.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Paste (Clear, White, Black, Grey, or Aluminum color)
ODOR:	Oxime odor
ODOR THRESHOLD:	NE
pH as SUPPLIED:	NA
MELTING POINT:	NA
FREEZING POINT:	Becomes very stiff with decreasing temperature around -60°C (-76°F)
INITIAL BOILING POINT:	NA
BOILING RANGE:	NA
FLASH POINT:	96°C (204.8°F)
EVAPORATION RATE:	< 1 (Butyl Acetate = 1)
FLAMMABILITY (solid):	Not classified as a flammability hazard
UPPER/LOWER FLAMMABILITY:	NE
UPPER/LOWER EXPLOSIVE LIMITS:	NE
VAPOR PRESSURE (mmHg):	Negligible (25°C)
VAPOR DENSITY (AIR = 1):	> 1 (Air = 1)
RELATIVE DENSITY:	1.03 (25°C)
SOLUBILITY IN WATER:	Not soluble
PARTITION COEFFICIENT (n-octanol/water):	NE

AUTOIGNITION TEMPERATURE: NE
DECOMPOSITION TEMPERATURE: NE
VISCOSITY: NA
VOC: 1-3%

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID (STABILITY): NE
INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing materials, water, moisture
HAZARDOUS DECOMPOSITION/BY-PRODUCTS: This product reacts with water, moisture or humid air to evolve the following compounds: Methyl Ethyl Ketoxime. Refer to section 8 and section 11.
Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition products: Carbon oxides and traces of incompletely burned carbon compounds, silicone dioxide, nitrogen oxides, and formaldehyde.
POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin Contact
Ingestion
Eye Contact

ACUTE TOXICITY:

Component	Result	Species	Dose	Exposure
Alkoxy Silane	LD50 Oral	Rat	2995 mg/kg 2400 ml/kg	NA
	LC50 Inhalation	Rat	1.49-2.44 mg/L	4 hr.
	LD50 Dermal	Rabbit	>2000 mg/kg 16 ml/kg	NA
Methyl Ethyl Ketoxime	LD50 Oral	Rat	930 mg/kg	NA
	LD50 Dermal	Rabbit	200 µl/kg	NA

SKIN CORRISION/IRRITATION: SKIN-RABBIT: Moderately irritating [Alkoxy Silane]
SKIN-RABBIT: 500mg/24 r MILD [Octa Methyl Cyclo Tetra Siloxane]
Causes serious eye damage. [Vinyloximesilane] [Methyl Ethyl Ketoxime]
EYE-RABBIT: 15mg SEVERE [Alkoxy Silane]
Causes serious eye irritation. [Methyl Oxime Silane]
EYE-RABBIT: MILD [Octa Methyl Cyclo Tetra Siloxane]
SERIOUS EYE DAMAGE/IRRITATION: NA
RESPIRATORY OR SKIN SENSITIZATION: NE
GERM CELL MUTAGENICITY: NA
CARCINOGENICITY:

OSHA: NA	ACGIH: NA	NTP: NA	IARC: NA

Suspected of causing cancer. [Methyl Ethyl Ketoxime]
REPRODUCTIVE TOXICITY: Octa Methyl Cyclo Tetra Siloxane administered to rats by whole body inhalation at concentrations of 500 and 700 ppm for 70 days prior to mating, through mating, gestation and lactation resulted in decreases in live litter size. Additionally, increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia) were observed at these concentrations. Statistically significant alterations in these parameters were not observed in the lower concentrations evaluated (300 and 70 ppm). In a previous range-finding study, rats exposed to vapor concentrations of 700 ppm had decreases in the number of implantation sites and live litter size. The significance of these findings to humans is not known. [Octa Methyl Cyclo Tetra Siloxane]
Developmental toxicity: NOAEL 500mg/kg/day (Rat), Maternal toxicity: NOAEL 500mg/kg/day (Rat) [Alkoxy Silane]
STOT-SINGLE EXPOSURE: NA
STOT-REPEATED EXPOSURE: Cardiovascular / Hematological: hematopoiesis. [Vinyl Oxime Silane]
Cardiovascular / Hematological: hematopoiesis. [Methyl Oxime Silane]
Repeated inhalation or oral exposure of mice and rats to Octa Methyl Cyclo Tetra Siloxane produced an increase in liver size. No gross histopathological or significant clinical chemistry effects were observed. An increase in liver metabolizing enzymes, as well as a transient increase in the number of normal cells (hyperplasia) followed by an increase in cell size (hypertrophy) were determined to be the underlying causes of the liver enlargement. The biochemical mechanisms producing these effects are highly sensitive in rodents, while similar mechanisms in humans are insensitive. A two-year combined chronic and carcinogenicity assay was conducted on Octa Methyl Cyclo Tetra Siloxane. Rats were exposed by whole-body vapor inhalation 6hrs/day, 5days/week for up to 104 weeks to 0, 10, 30, 150 or 700ppm of Octa Methyl Cyclo Tetra Siloxane. The increase in incidence of (uterine) endometrial cell hyperplasia and uterine adenomas (benign tumors) were observed in female rats at 700ppm. Since these effects only occurred at 700ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing Octa Methyl Cyclo Tetra Siloxane would result in a significant risk to humans.
ASPIRATION HAZARD: NA

SECTION 11 NOTES:
This product has not been tested as a whole to determine its hazards. Synergistic or additive effects of the above chemicals are unknown, as are the effects of exposure to these chemicals in addition to others present in the work place. See Section 2 for additional health hazards.

12. ECOLOGICAL INFORMATION

TOXICITY: Toxic to aquatic life. Toxic to aquatic life with long lasting effects. [Alkoxy Silane]
May cause long lasting harmful effects to aquatic life. [Octa Methyl Cyclo Tetra Siloxane]

ACUTE TOXICITY:

Component	Aquatic	Result	Species	Dose	Exposure
Alkoxy Silane	Fish	LC50	Bluegill (Lepomis macrochirus)	> 100 mg/L	96 hr.
		LC50	Fathead minnow (Pimephales promelas)	> 100 mg/L	96 hr.
		LC50	Rainbow trout (Oncorhynchus mykiss)	> 100 mg/L	96 hr.
	Invertebrates	EC50	Water flea (Daphnia magna)	90 mg/L	48 hr.
	Algae	EbC50	Green algae (Selenastrum capricornutum)	5.5 mg/L	72 hr.
		ErC50	Green algae (Selenastrum capricornutum)	8.8 mg/L	72 hr.
Methyl Ethyl Ketoxime	Fish	LC50	Fathead minnow (Pimephales promelas)	777-914 mg/L	96 hr.

PERSISTENCE AND DEGRADIBILITY: NE
BIOACCUMULATIVE POTENTIAL: Bio concentration Factor (BCF) / (Fathead minnows): 12400 [Octa Methyl Cyclo Tetra Siloxane]
MOBILITY IN SOIL: NE
RESULT OF PBT and vPvB ASSESSMENT: NA
OTHER ADVERSE EFFECTS: NE

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Scrap and waste should be recycled or stored in a dry, sealed container for later disposal. Disposal must be in accordance with Federal, State/Provincial, and Local Regulations.

OTHER PRECAUTIONS: Avoid skin & eye contact, inhalation & ingestion of fumes and material. Wash contaminated clothing before reuse. Keep away from children.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

UN Number: Not available
UN Proper Shipping Name: Not available
Packaging Group: Not applicable
Environmental Hazards: None

TRANSPORT HAZARD CLASSES:
US DOT Hazardous Material Classification: Not regulated
Water Transportation: Not regulated
IATA Hazardous Material Classification: Not regulated
ADR Road Regulations Not regulated
IMDG Sea Regulations Not regulated
ADG Land Transportation Not regulated

15. REGULATORY INFORMATION

All ingredients used to manufacture this product are listed on the EPA TSCA Inventory. Finished product is not listed on the EPA TSCA Inventory.

U.S. FEDERAL REGULATIONS: Not regulated
STATE REGULATIONS: Not regulated
INTERNATIONAL REGULATIONS: Not regulated
AUSTRALIAN REGULATIONS: Not regulated

This product contains components known to the state of California to cause cancer or reproductive harm.

16. OTHER INFORMATION

LEGEND:

ACGIH	American Conference of Governmental Industrial Hygienists
ADG	Australian Dangerous Goods Code
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS	Australian Inventory of Chemical Substances
BCF	Bioconcentration factor
C.A.S.	Chemical Abstract Service
CLP	Classification, Labeling and Packaging
DOT	Department of Transportation
EC	Effective Concentration
EPA	Environmental Protection Agency

GHS	Global Harmonized System
HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LC	Lethal Concentration
LD	Lethal Dose
NA	Not available
NE	Not established
NIOSH	National Institute for Occupational Safety & Health
NOEC	No observed effective concentration
NOHSC	National Occupational Health and Safety Commission (Australia)
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
P_{ow}	Octanol water partition coefficient
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
STOT	Specific target organ toxicity
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA:	Time Weighted Average
US DOT:	United States Department of Transportation

PREPARATION INFORMATION:
This update supersedes all previously released documents.

DISCLAIMER:
The information and recommendations contained within this publication have been compiled from sources believed to be reliable and to represent the best information available to Chip Quik at the time of issue. No warranty, guarantee, or representation is made by Chip Quik nor does Chip Quik assume any responsibility in connection there within; nor can it be assumed that all acceptable safety measures or other safety measures may not be required under particular or exceptional conditions or circumstances. The data on this Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.