

Safety Data Sheet (SDS)

www.chipquik.com

To comply with European CLP Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME: Chip Quik Silicone Adhesive Sealant: EGS, NCS
SYNONYMS: Silicone
PART NUMBERS: EGS10C, NCS10C, NCS10A, EGS10C-20G, NCS10C-20G, NCS10A-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)
13 Adelaide Road, Dublin, Ireland, D02 P950 (EU)

PHONE: (508) 477-2264
1.4 EMERGENCY PHONE: +44 20 3868 7152 (UK and EU 24/7)

REVISION DATE: 2024/02/21
REVISION NUMBER: EU2.5
REVISED BY: Chip Quik Product Safety

2. HAZARD IDENTIFICATION

2.1 Classified in accordance with European CLP Regulation 1272/2008

Acute Toxicity (oral)	4*	H302		
Acute Toxicity (dermal)	4*	H312		
Acute Toxicity (inhalation)	4	H332		
Eye Irritant	2	H319		
Skin Irritant	2	H315		
Skin Sensitization	1	H317		
Reproductive toxicity	2	H360FD		
Carcinogenic	2	H351		
Specific target organ toxicity, repeated exposure (Cardiovascular/Hematological: hematopoiesis)			2	H373

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

2.2 Label Elements:
GHS/CLP LABEL ELEMENTS:



Signal Word: Danger

GHS/CLP LABEL ELEMENTS:

Hazard statement(s)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
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.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs (hematopoietic system) through prolonged or repeated exposure.

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.

2.3 Other Hazards:

POTENTIAL HEALTH EFFECTS (CHRONIC and OVEREXPOSURE)

None known.

SECTION 2 NOTES:

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Classified in accordance with European CLP Regulation 1272/2008

Hazardous Ingredients	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
Dimethyl Siloxanes and Silicones	63148-62-9	>93	NE	NE	NE	NE
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
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

4. FIRST-AID MEASURES

4.1 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.

4.2 Not available

4.3 Not available

5. FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Dry chemical, foam
Alcohol-resistant foam
Carbon Dioxide (CO2)
Water Spray

5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS:

May release toxic oxides, nitrogen oxides (corrosive), formaldehyde.

5.3 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.

6. ACCIDENTAL RELEASE MEASURES

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

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

6.3 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.

6.4 SECTION 6 NOTES:

See Sections 2, 4, and 7 for additional information.

7. HANDLING AND STORAGE

7.1/7.2 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.

7.3 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

8.1 Occupational Exposure Limit Values:

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.

8.2 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 (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.

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

9.1

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%

9.2 Other Information

9.2.1 Information with regard to physical hazard classes

No additional information available.

9.2.2 Other safety characteristics

No additional information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity: NE
 10.2 STABILITY: Stable under normal conditions.
 10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization does not occur.
 10.4 CONDITIONS TO AVOID (STABILITY): NE
 10.5 INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing materials, water, moisture
 10.6 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.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin Contact
 Ingestion
 Eye Contact

11.1 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 CORRISSION/IRRITATION: SKIN-RABBIT: Moderately irritating [Alkoxy Silane]
 SKIN-RABBIT: 500mg/24 r MILD [Octa Methyl Cyclo Tetra Siloxane]
 Causes serious eye damage. [Vinyl oximesilane] [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:

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

11.2 Information on other hazards:

11.2.1 Endocrine disrupting properties:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

11.2.2 Other information:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named manufacturer, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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

12.1 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 (<i>Lepomis macrochirus</i>)	> 100 mg/L	96 hr.
		LC50	Fathead minnow (<i>Pimephales promelas</i>)	> 100 mg/L	96 hr.
		LC50	Rainbow trout (<i>Oncorhynchus mykiss</i>)	> 100 mg/L	96 hr.
	Invertebrates	EC50	Water flea (<i>Daphnia magna</i>)	90 mg/L	48 hr.
	Algae	EbC50	Green algae (<i>Selenastrum capricornutum</i>)	5.5 mg/L	72 hr.
		ErC50	Green algae (<i>Selenastrum capricornutum</i>)	8.8 mg/L	72 hr.
Methyl Ethyl Ketoxime	Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	777-914 mg/L	96 hr.

PERSISTENCE AND DEGRADABILITY:

NE

BIOACCUMULATIVE POTENTIAL:

Bio concentration Factor (BCF) / (Fathead minnows): 12400 [Octa Methyl Cyclo Tetra Siloxane]

MOBILITY IN SOIL:

NE

12.5 RESULT OF PBT and vPvB ASSESSMENT:

NA

12.6 Endocrine Disrupting Properties:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 OTHER ADVERSE EFFECTS:

No known significant effects or critical hazards

13. DISPOSAL CONSIDERATIONS

13.1 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.

14.1 UN Number: Not available

14.2 UN Proper Shipping Name: Not available

14.3 TRANSPORT HAZARD CLASSES:

EU 2008/68/EC:	Non-Hazardous
Water Transportation:	Non-Hazardous
IATA Hazardous Material Classification:	Non-Hazardous
ADR Road Regulations	Not regulated
IMDG Sea Regulations	Not regulated
ADG Land Transportation	Not regulated

14.4 Packaging Group: Not applicable

14.5 Environmental Hazards: None
14.6 Not applicable
14.7 Not applicable

15. REGULATORY INFORMATION

15.1
EU REGULATIONS: Not regulated
U.S. FEDERAL REGULATIONS: Not regulated
STATE REGULATIONS: Not regulated
INTERNATIONAL REGULATIONS: Not regulated
AUSTRALIAN REGULATIONS: Not regulated

15.2 NA

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
EC Number	European Community Number
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
MEL	Maximum Exposure Limit
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 therewith; 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.