Issue Date: Aug 1st, 2023

Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 **Product identifier** :G4J (0011680011, 0011680012, 0011680013, 0011680014,0011680001, 0011680002, 0011680003)
1.2 **Trade name :** Marcel series, Cindy series
1.3 **Relevant identified uses of the substance or mixture and uses advised against:**
1.3.1. Relevant identified uses: Isolation of electrical or electronic material.
1.3.2. Uses advised against: No data available
1.4 **Company Identification :**
RAYTECH S.r.l.
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Fax: +39 (02) 33500287 e-mail: info@raytech.it

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture:
The product has not been classified as hazardous according to the legislation in force.
2.1.1 Classification according to Regulation (EC) No 1272/2008 as amended. Not classified
2.2 **Label elements:**
Not applicable
Hazard summary
Physical Hazards: No specific recommendations.
Health Hazards
Inhalation: Not applicable
Eye contact: No specific symptoms noted.
Skin Contact: No specific symptoms noted.
Ingestion: No specific symptoms noted.
Other Health Effects: No other information noted.
Environmental Hazards: Not regarded as dangerous for the environment.
2.3 **Other hazards**:
Chemical compounds containing silicon - hydrogen bonds (SiH).
Meets vPvB criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Cross liked Elastomer. The product is supplied already cured. In the table below the percent concentrations of impurity, not intentionally added, are referred to the row materials before crosslinking. The residual content of these impurity in the final cured product is expected to be below 0,1 %.
3.2 Mixtures: The mixture contains these substances:

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Decamethylcyclopentasiloxane	⩾ 0,1 - <0.25%	541-02-6	208-764-9	01- 2119511367- 43-0003	No data available.	vPvB
Dodecamethylcyclohexasiloxane	⩾ 0,1 - <0.25%	540-97-6	208-762-8	01- 2119517435- 42-0002	No data available.	vPvB

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).
3.2 Classification:

Chemical name	Classification	Notes
Decamethylcyclopentasiloxane	No data available.	No data available.
Dodecamethylcyclohexasiloxane	No data available.	No data available.

4. FIRST AID MEASURES

4.1 **Description of first aid measures:**
In case of respiratory exposure: Not relevant.
In case of skin contamination: Remove contaminated clothing and shoes. Wash with soap and water
In case of intrusion into eye: In the event of contact with the eyes, rinse thoroughly with clean water. Continue to rinse for at least 15 minutes.
In case of oral intake: Do not induce vomiting. Rinse mouth thoroughly.
4.2 **Most important symptoms and effects, both acute and delayed:** No data available.
4.3 **Indication of any immediate medical attention and special treatment needed:** No data available.

5. FIREFIGHTING MEASURES

General Fire Hazards: No specific recommendations.
5.1 **Extinguishing media:**
Suitable extinguishing media: Foam. Powder. Carbon dioxide (CO2).
Unsuitable extinguishing media: No data available.
5.2 **Special hazards arising from the substance or mixture:** No data available. For further information, refer to section 10: "Stability and Reactivity".
5.3 **Advice for firefighters:** Water spray should be used to cool containers.
Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials.

6. ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**

For non-emergency personnel: Wear appropriate personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Keep away from Alkalis and caustic products. Eliminate all sources of ignition.

For emergency responders: No data available.

6.2 **Environmental precautions:** Collect spillage. Prevent entry into waterways, sewer, basements or confined areas.

6.3 **Methods and material for containment and cleaning up:** To clean the floor and all objects contaminated by this material, use an appropriate solvent. (cf. : § 9) Flush area with plenty of water.

6.4 **Reference to other sections:** Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

7. HANDLING AND STORAGE

7.1 **Precautions for safe handling:** For further information, refer to Section 10: "Stability and Reactivity". Read and follow manufacturer's recommendations.

7.2 **Conditions for safe storage, including any incompatibilities:** Keep away from incompatible materials, open flames, and high temperatures

7.3 **Specific end use(s):** No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters:** None of the components have assigned exposure limits

8.2. **Exposure controls:**

8.2.1 **Appropriate engineering controls:** No data available.

8.2.2 **In Individual protection measures, such as personal protective equipment:**

8.2.2.1 **Eye/face protection:** Safety Glasses.

8.2.2.2 **Skin protection:**

Hand protection: Material: Nitrile. Material: Polyvinyl chloride (PVC). Material: Rubber or plastic.

Other: It is a good industrial hygiene practice to minimize skin contact. Wear suitable protective clothing.

8.2.2.3 **Respiratory protection:** No specific precautions.

8.2.2.4 **Thermal hazards:** No specific precautions.

8.2.3 **Environmental exposure controls:** No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	Physical state: Solid Form: Gel Color: Clear
Odour:	Odorless
Odour threshold:	-
pH:	-
Melting point/freezing point :	-
Initial boiling point and boiling range:	-
Flash point:	-
Evaporation rate:	-
Flammability (solid, gas):	-
Upper/lower flammability or explosive limits:	-
Vapour pressure:	-
Vapour density:	-
Relative density:	Approximate 0.96 kg/dm3 (23 °C)
Solubility(ies):	Solubility in Water: Insoluble Solubility (other): Diethylether: Very slightly soluble. Chlorinated solvents: Very slightly soluble. Aromatic hydrocarbons: Very slightly soluble. Aliphatic hydrocarbons: Very slightly soluble. Acetone: Very slightly soluble. Ethanol: Very slightly soluble.
Partition coefficient: n-octanol/water:	-
Auto-ignition temperature:	> 500 °C
Decomposition temperature:	>> 200 °C
Viscosity:	-
Explosive properties:	-
Oxidising properties:	According to the data on the components Not considered as oxidizing. (evaluation by structure-activity relationship)

9.2 **Other information:** No data available.

10. STABILITY AND REACTIVITY

10.1 **Reactivity:** No data available.

10.2 **Chemical stability:** The product is stable under normal conditions.

10.3 **Possibility of hazardous reactions:** No data available.

10.4 **Conditions to avoid:** No data available.

10.5 **Incompatible materials:** No data available.

10.6 **Hazardous decomposition products:** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation: No effects expected (assessment based on ingredients).

Ingestion: No effects expected (assessment based on ingredients).

Skin Contact: No effects expected (assessment based on ingredients).

Eye contact: No effects expected (assessment based on ingredients).

11.1 **Information on toxicological effects:**

Acute toxicity:

Oral

Product: Not classified for acute toxicity based on available data.

Dermal

Product: Not classified for acute toxicity based on available data.

Inhalation

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	LC 50 (Rat): 8,67 mg/l
Repeated dose toxicity	
Product:	**Composition/information on ingredients**
Specified substance(s):	
Decamethylcyclopentasiloxane:	NOAEL (Rat, Oral): >= 1 000 mg/kg NOAEL (Rat, Inhalation - vapor): >= 2,42 mg/l NOAEL (Rat, Dermal): >= 1 600 mg/kg
Dodecamethylcyclohexasiloxane	NOAEL (Rat, Oral): >= 1 000 mg/kg Method: OECD 422 NOAEL (Rat, Inhalation - vapor): 0,0182 mg/l Method: OECD 413
Skin Corrosion/Irritation	
Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane:	Rabbit : Not irritating
Dodecamethylcyclohexasiloxane	OECD 404 (Rabbit) : Not irritating
Serious Eye Damage/Eye Irritation	
Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane:	Rabbit : Not irritating
Dodecamethylcyclohexasiloxane	OECD 405 (Rabbit) : Not irritating
Respiratory or Skin Sensitization:	
Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	Not a skin sensitizer.
Dodecamethylcyclohexasiloxane	OECD 406 (Guinea Pig) : Not a skin sensitizer.
Germ Cell Mutagenicity:	
In vitro:	
Product:	Composition/information on ingredients
Specified substance(s)	
Decamethylcyclopentasiloxane:	Chromosomal aberration : No mutagenic components identified. Bacteria : No mutagenic components identified
Dodecamethylcyclohexasiloxane	Mouse lymphoma cells (OECD 476): negative with and without metabolic activation Bacteria (OECD 471): negative with and without metabolic activation
In vivo:	
Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane:	No effects expected.
Dodecamethylcyclohexasiloxane	Mammalian erythrocyte micronucleus test (OECD 474): No mutagenic effects.
Carcinogenicity:	
Product:	No data available
Reproductive toxicity:	
Product:	Composition/information on ingredients
Specified substance(s)	
Dodecamethylcyclohexasiloxane	Based on available data, the classification criteria are not met.
Reproductive toxicity (Fertility):	
Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	Fertility study 2 generations. Rat (Inhalation): NOAEL (parent): 3,64 mg/l NOAEL (F1):None. NOAEL (F2): None. Method: OECD 416
Dodecamethylcyclohexasiloxane	Reproduction/developmental toxicity screening test. Rat (Gavage (Oral)): NOAEL (parent): >= 1 000 mg/kg NOAEL (F1):>= 1 000 mg/kg NOAEL (F2): Method: OECD 422
Developmental toxicity (Teratogenicity)	
Product	Composition/information on ingredients
Specified substance(s):	
Dodecamethylcyclohexasiloxane	Rabbit NOAEL (terato): >= 1 000 mg/kg NOAEL (mater): >= 1 000 mg/kg Method: OECD 414 Rat NOAEL (terato): >= 1 000 mg/kg NOAEL (mater): >= 1 000 mg/kg Method: OECD 414
Specific Target Organ Toxicity - Single Exposure:	
Product:	No data available.
Specified substance(s):	
Dodecamethylcyclohexasiloxane	Based on available data, the classification criteria are not met.
Specific Target Organ Toxicity - Repeated Exposure:	
Product:	No data available.
Specified substance(s):	
Dodecamethylcyclohexasiloxane	Based on available data, the classification criteria are not met.
Aspiration Hazard:	
Product:	No data available.

12. ECOLOGICAL INFORMATION

12.1 **Toxicity:**

Acute toxicity No data available.

Chronic Toxicity:

Fish:

Decamethylcyclopentasiloxane: NOEC (Oncorhynchus mykiss, 90 d): >= 0,014 mg/l

Aquatic Invertebrates:

Dodecamethylcyclohexasiloxane :NOEC (Water flea (Daphnia magna), 21 d): >= 0,0046 mg/l

Toxicity to Aquatic Plants:

Dodecamethylcyclohexasiloxane: NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): >= 0,002 mg/l EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 0,002 mg/l

12.2 **Persistence and degradability:**

Decamethylcyclopentasiloxane 0,14 % (28 d) The product is not readily biodegradable.

Dodecamethylcyclohexasiloxan e 4,5 % (28 d, OECD 310) The product is not readily biodegradable

12.3 **Bioaccumulative potential:**

Decamethylcyclopentasiloxane Fathead Minnow, Bioconcentration Factor (BCF): 7 060

Dodecamethylcyclohexasiloxane Fathead Minnow, Bioconcentration Factor (BCF): 2 860 (OECD 305) Has the potential to bioaccumulate.

12.4 **Mobility in soil:** No data available.

12.5 **Results of PBT and vPvB assessment:**

Decamethylcyclopentasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII
Dodecamethylcyclohexasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII

12.6 **Other adverse effects:** No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

General information: The user's attention is drawn to the possible existence of local regulations regarding disposal.
Disposal methods/Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Contaminated Packaging: Contaminated packages should be as empty as possible. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Recycle following cleaning or dispose of at an authorised site

14. TRANSPORT INFORMATION

14.1 **UN number:** No data available.
14.2 **UN proper shipping name:** No data available.
14.3 **Transport hazard class(es):** No data available.
14.4 **Packing group:** No data available.
14.5 **Environmental hazards:** No data available.
14.6 **Special precautions for user:** No data available.
14.7 **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** No data available.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

The substances in the mixture are not subject to authorisation under Title VII or restrictions under Title VIII of Regulation (EC) No. 1907/2006.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC;

Regulation (EC) No 1272/2008 of the European parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006;

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH);

DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations;

COUNCIL DIRECTIVE of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (67/548/EEC).

15.2 **Chemical safety assessment:** Chemical safety assessment is not available.

16. OTHER INFORMATION

List of relevant risk phrases and hazard statements:

Instructions for the training: Product handling instruction shall be included into the educational system about the safety work (initial training, training at the workplace, repeated training) according to specific conditions at the workplace.

Recommended restrictions on use (i.e. non-statutory recommendations by supplier):

Mixture should not be used for any other purpose than for which is appointed (point 1.2). Because of the fact that specific conditions of use of mixture are out of supplier's control, it is responsibility of the user to adjust the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and it cannot be considered as technical information about product.

Sources of key data used to compile the Safety Data Sheet:

SDS was elaborated according to requirements set in Annex II of Regulation (EC) No 1907/2006 of the European Parliament and of the Council. SDS was prepared using data from the producer.

Purpose of SDS:

Purpose of this SDS is to provide relevant information for users of product to ensure proper handling and control of risks/hazards.

References:

PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

Wording of the H-statements in section 2 and 3

H226	Flammable liquid and vapor.
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.

- End of the document -