SAFETY DATA SHEET

According to regulation (EC) n° 1907/2006 Annex II

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: HR397T & HR397 BLACK **Product No.:** PRCO90060858

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

Identified uses: Used for making joints, sealing and gluing.
Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet:

Supplier:

FEDERAL-MOGUL GLOBAL
AFTERMARKET EMEA BVBA
Prins Boudewijnlaan 5 B-2550
Kontich

Telephone: +32 (0) 3 450 83 10
Fax: +32 (0) 3 451 97 00

1.4 Emergency telephone number: CHEMTREC Germany (24h) : +(49)-69643508409

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Health Hazards

Serious eye irritation	Category 2	H319: Causes serious eye irritation.

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s): H319: Causes serious eye irritation.

Precautionary Statements

Prevention: P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

Hazard summary

Physical Hazards: During curing, the product will release small quantities of irritating vapors.

Health Hazards

Inhalation: No specific symptoms noted.

Eye contact: Causes serious eye irritation.

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 Meets PBT (persistent/bioaccumulative/toxic) criteria Meets vPvB criteria

Substance(s) formed under the conditions of use:

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	Notes
Acetic acid	<3%	64-19-7		01-2119475328-30-XXXX	#

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture of polydimethylsiloxanes, silica and curing agents.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Methylsilanetriyl triacetate	1 - <3%	4253-34-3	224-221-9	01-2119987097-22-XXXX	No data available.	
Octamethylcyclotetrasiloxane	1 - <3%	556-67-2	209-136-7	01-2119529238-36-0002	No data available.	# PBT vPvB
Decamethylcyclopentasiloxane	0,1 - <1%	541-02-6	208-764-9	01-2119511367-43-0003	No data available.	vPvB
Dodecamethylcyclohexasiloxane	0,1 - <1%	540-97-6	208-762-8	01-2119517435-42-0002	No data available.	vPvB
Acetic acid		64-19-7	200-580-7	01-2119475328-30-XXXX	No data available.	#

* 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).

Classification

Chemical name	Classification	Notes
Methylsilanetriyl triacetate	Skin Corr. 1B H314;	No data available.
Octamethylcyclotetrasiloxane	Flam. Liq. 3 H226; Repr. 2 H361f; Aquatic Chronic 4 H413;	No data available.
Decamethylcyclopentasiloxane	None known.	No data available.
Dodecamethylcyclohexasiloxane	None known.	No data available.
Acetic acid	Flam. Liq. 3 H226; Skin Corr. 1A H314;	No data available.

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General: Get medical attention if symptoms occur. Contaminated clothing to be placed in closed container until disposal or decontamination.

4.1 Description of first aid measures

Inhalation: Move into fresh air and keep at rest.

Skin Contact: Remove contaminated clothing and shoes. Wash with soap and water.

Eye contact: In the event of contact with the eyes, rinse thoroughly with clean water. Continue to rinse for at least 15 minutes.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: None known.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No specific recommendations.

Treatment: No specific recommendations.

SECTION 5: Firefighting measures

General Fire Hazards: No specific recommendations.

5.1 Extinguishing media

Suitable extinguishing media: Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media: Do not use water as an extinguisher.

5.2 Special hazards arising from the substance or mixture: For further information, refer to section 10: "Stability and Reactivity".

5.3 Advice for firefighters

Special fire fighting procedures: 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Use personal protective equipment. Do not breathe vapor. See Section 8 of the SDS for Personal Protective Equipment. Ventilate the area.

6.1.2 For emergency responders: No data available.

6.2 Environmental Precautions: Collect spillage. Do not discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up: Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Container must be kept tightly closed. Absorb with sand or other inert absorbent. To clean the floor and all objects contaminated by this material, use an appropriate solvent.(cf. : § 9) Flush area with plenty of water. Incinerate in suitable combustion chamber.

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Adequate ventilation should be provided so that exposure limits are not exceeded.

7.2 Conditions for safe storage, including any incompatibilities: Avoid discharge into drains, water courses or onto the ground. Store in tightly closed original container. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. Avoid contact with oxidizing agents. Vulcanizes at room temperature on contact with moisture in the air. For further information, refer to section 10: "Stability and Reactivity". Suitable containers: Steel drums coated with epoxy-resin.

Lagerungshinweise: Es liegen keine Daten vor.

Storage Class: No data available.

7.3 Specific end use(s): No specific recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Octamethylcyclotetrasiloxane	VME	10 ppm 120 mg/m3	

Additional exposure limits under the conditions of use

Chemical name	Type	Exposure Limit Values		Source
Acetic acid	MAK	10 ppm	25 mg/m3	Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG) (2009)
	TWA	10 ppm	25 mg/m3	EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (12 2009)
	AGW	10 ppm	25 mg/m3	Germany. TRGS 900, Occupational Exposure Limits (AGW) (01 2010)

8.2 Exposure controls

Appropriate Engineering Controls: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Use engineering controls to reduce air contamination to permissible exposure level.

Individual protection measures, such as personal protective equipment

General information: Provide sufficient ventilation during operations which cause vapor formation.

Eye/face protection: Safety Glasses.

Skin protection

Hand Protection: Material: Rubber gloves are recommended.

Other: It is a good industrial hygiene practice to minimize skin contact.

Respiratory Protection: If ventilation is insufficient, suitable respiratory protection must be provided. Use respiratory equipment with gas filter, type A.

Hygiene measures: Provide eyewash station and safety shower.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Paste

Form: Thixotropic

Color: Black

Odor: Vinegar

Odor Threshold: No data available.

pH: Not applicable

Melting Point: No data available.

Boiling Point: No data available.

Flash Point: > 150 °C (Closed cup according to method Afnor T 60103.)

Evaporation Rate: No data available.

Flammability (solid, gas): No data available.

Flammability Limit - Upper (%): No data available.

Flammability Limit - Lower (%): No data available.

Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Density:	Approximate 1,04 kg/dm3 (20 °C)
Solubility(ies)	
Solubility in Water:	Practically Insoluble
Solubility (other):	Acetone: Insoluble Ethanol: Insoluble Petrol.: Partially soluble. White-spirit.: Partially soluble. Aromatic hydrocarbons: Partially soluble. Chlorinated solvents: Partially soluble.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	> 200 °C
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	According to the data on the components Not considered as oxidizing. (evaluation by structure-activity relationship)

9.2 Other information: No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Vulcanizes at room temperature on contact with moisture in the air.
10.2 Chemical Stability:	Stable at room temperature provided it is not in contact with air.
10.3 Possibility of hazardous reactions:	No data available.
10.4 Conditions to avoid:	No other information noted.
10.5 Incompatible Materials:	Strong oxidizing agents. Water.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica. During use or in contact with water, may generate hazardous substances.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Ingestion:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

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:	Not classified for acute toxicity based on available data.

Repeated dose toxicity:

Product:	Composition/information on ingredients
Specified substance(s):	
Methylsilanetriyl triacetate	NOAEL (Rat(Female, Male), Oral): 50 mg/kg Method: OECD 422 Results obtained on a similar product. NOAEL (Rat(Female, Male), Inhalation - vapor): 0,56 mg/l Method: OECD 413 LOAEL (Rat(Female, Male), Inhalation - vapor): 2,2 mg/l Results obtained on a similar product.
octamethylcyclotetrasiloxane	NOAEL (Rat, Inhalation): 1,820 mg/l Method: OECD 453 NOAEL (Rabbit, Dermal): 960 mg/kg Method: OECD 411
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
acetic acid...%	NOAEL (Rat, Feed (Oral)): 290 mg/kg Method: Expert judgement

Skin Corrosion/Irritation:

Product:	Test results Not irritating Results obtained on a similar product.

Serious Eye Damage/Eye Irritation:

Product:	Test results Irritant. Results obtained on a similar product.

Respiratory or Skin Sensitization:

Product:	Composition/information on ingredients
Specified substance(s):	

Methylsilanetriyl triacetate	OECD 406 (Guinea Pig) : Not a skin sensitizer.
octamethylcyclotetrasiloxane	Guinea Pig : Not a skin sensitizer.
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):	
Methylsilanetriyl triacetate	Bacteria (OECD 471): No mutagenic effects. In vitro gene mutations test on mammalian cells: (OECD 476): No mutagenic effects.Results obtained on a similar product. Chromosomal aberration (OECD 473): No clastogenic effect.
octamethylcyclotetrasiloxane	Bacteria : No mutagenic components identified. Chromosomal aberration : No mutagenic components identified. In vitro gene mutations test on mammalian cells: : No mutagenic components identified.
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
acetic acid...%	Bacteria (OECD 471): No mutagenic effects. Chromosomal aberration (OECD 473): No clastogenic effect. (OECD 476)Inconclusive data

In vivo:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	No effects expected.
Decamethylcyclopentasiloxane	No effects expected.
Dodecamethylcyclohexasiloxane	Mammalian erythrocyte micronucleus test (OECD 474): No mutagenic effects.
acetic acid...%	(According to a standardised method.)Results obtained on a similar product.No mutagenic effects.

Carcinogenicity:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	Rat (, Female, Male, Inhalation): (OECD 453) No effects expected.

Reproductive toxicity:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	Suspected of damaging fertility.
Dodecamethylcyclohexasiloxane	Based on available data, the classification criteria are not met.

Reproductive toxicity (Fertility):

Product:	Composition/information on ingredients
Specified substance(s):	
Methylsilanetriyl triacetate	Rat Female, Male (Ingestion): NOAEL (parent): >= 1 000 mg/kg NOAEL (F1):NOAEL (F2): Method: OECD 422
octamethylcyclotetrasiloxane	Fertility study 2 generations. Rat (Inhalation): NOAEL (parent): 3,64 mg/l NOAEL (F1):None. NOAEL (F2): None. Method: OECD 416
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):	
octamethylcyclotetrasiloxane	Rat (Inhalation): NOAEL (terato): > 6,066 mg/l NOAEL (mater): 3,640 mg/l Method: OECD 414
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
acetic acid...%	Rat (Ingestion): NOAEL (terato): 1 600 mg/kg NOAEL (mater): Method: According to a standardised method.

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):	

Methylsilanetriyl triacetate	Not classified
Dodecamethylcyclohexasiloxane	Based on available data, the classification criteria are not met.

Aspiration Hazard:

Product:	No data available.
Specified substance(s):	
octamethylcyclotetrasiloxane	No effects expected.

SECTION 12: Ecological information

General information: Not applicable

12.1 Toxicity:

Acute toxicity:

Fish:

Product:	Composition/information on ingredients
Specified substance(s):	
Methylsilanetriyl triacetate	LC 50 (96 h): > 100 mg/l Results obtained on a similar product.
octamethylcyclotetrasiloxane	LC 50 (Oncorhynchus mykiss, 96 h): >= 0,022 mg/l
acetic acid...%	LC 50 (Oncorhynchus mykiss, 96 h): > 1 000 mg/l

Aquatic Invertebrates:

Product:	Composition/information on ingredients
Specified substance(s):	
Methylsilanetriyl triacetate	LC 50 (48 h): > 100 mg/l Results obtained on a similar product.
octamethylcyclotetrasiloxane	EC 50 (Water flea (Daphnia magna), 48 h): > 0,015 mg/l
acetic acid...%	EC 50 (Water flea (Daphnia magna), 48 h): > 1 000 mg/l

Chronic Toxicity:

Fish:

Product:	No data available.
Specified substance(s):	
octamethylcyclotetrasiloxane	NOEC (Oncorhynchus mykiss, 93 d): >= 0,0044 mg/l
Decamethylcyclopentasiloxane	NOEC (Oncorhynchus mykiss, 90 d): >= 0,014 mg/l

Aquatic Invertebrates:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	NOEC (Water flea (Daphnia magna), 21 d): 0,015 mg/l
Dodecamethylcyclohexasiloxane	NOEC (Water flea (Daphnia magna), 21 d): >= 0,0046 mg/l

Toxicity to Aquatic Plants:

Product:	Composition/information on ingredients
Specified substance(s):	
Methylsilanetriyl triacetate	EC 50 (96 h): 660 mg/l Results obtained on a similar product.
octamethylcyclotetrasiloxane	EC 50 (Green algae (Selenastrum capricornutum), 96 h): > 0,022 mg/l
Dodecamethylcyclohexasiloxane	NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): >= 0,002 mg/l EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 0,002 mg/l
acetic acid...%	EC 50 (Alga, 72 h): > 1 000 mg/l NOEC (Alga, 72 h): 1 000 mg/l

12.2 Persistence and Degradability:

Biodegradation:

Product:	Composition/information on ingredients
Specified substance(s):	
Methylsilanetriyl triacetate	74 % (21 d, According to a standardised method.) Readily biodegradable Results obtained on a similar product.
octamethylcyclotetrasiloxane	3,7 % (29 d) The product is not considered to be readily biodegradable.
Decamethylcyclopentasiloxane	0,14 % (28 d) The product is not readily biodegradable.
Dodecamethylcyclohexasiloxane	4,5 % (28 d, OECD 310) The product is not readily biodegradable.
acetic acid...%	96 % (20 d) Readily biodegradable

BOD/COD Ratio:

Product:	No data available.

12.3 Bioaccumulative potential:

Product:	No data available.
Specified substance(s):	
octamethylcyclotetrasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 12 400
Decamethylcyclopentasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 7 060
Dodecamethylcyclohexasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 2 860 (OECD 305) Has the potential to bioaccumulate.
acetic acid...%	Bioconcentration Factor (BCF): 3,16 (estimated)

12.4 Mobility in soil: No data available.

12.5 Results of PBT and vPvB assessment: Composition/information on ingredients

octamethylcyclotetrasiloxane	Meets PBT (persistent/bioaccumulative/toxic) criteria, Meets vPvB criteria	REACH (1907/2006) Ax XIII
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.

SECTION 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. Incinerate.

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.

SECTION 14: Transport information

This material is not subject to transport regulations.

Other information: No special precautions.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable.

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:
none

National Regulations

Wassergefährdungs-klasse (WGK): WGK 2: wassergefährdend.

Technische Anleitung zur Reinhaltung der Luft (TA-Luft):
Octamethylcyclotetrasiloxane

Water Hazard Class (WGK): WGK 2: significantly water-endangering.

TA Luft, Technical Guidance Air:
Octamethylcyclotetrasiloxane

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

Inventory Status:

Australia AICS:	On or in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory.
EINECS, ELINCS or NLP:	On or in compliance with the inventory.
Japan (ENCS) List:	On or in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory.

SECTION 16: Other information

Revision Information: Not relevant.

References

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

Key abbreviations or acronyms used:
No data available.

Key literature references and sources for data: No data available.

Wording of the H-statements in section 2 and 3

H226	Flammable liquid and vapor.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.

Training information: No data available.

Classification according to Regulation (EC) No 1272/2008 as amended.
Eye Irrit. 2, H319

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SDS No.:
Disclaimer: The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.