

Safety Data Sheet



A Subsidiary of PETRONAS Chemicals Group

BRB CM 40

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Version 5

1. Identification

Product identifier

Product name BRB CM 40

Other means of identification

Product code 1041019

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use solvent, Chemical intermediate

Restrictions on use No information available

Details of the supplier of the safety data sheet

BRB International BV
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6014 CB Ittervoort
The Netherlands
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68 3rd Street, Suite 247
Brooklyn, NY 11231
USA
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BRB Malaysia Sdn Bhd
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Kuantan, Pahang 26080
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☎: 00603-5858-588

For further information, please contact

Contact Point Regulatory Affairs Department
E-mail address MSDS@brbbv.com

Emergency telephone number

Emergency telephone +1 215 207 0061 (NCEC 24/7) For additional emergency telephone numbers see section 16 of the safety data sheet.

2. Hazard(s) identification

Classification

Reproductive toxicity	Category 2
Flammable liquids	Category 3

Label elements

Warning

Hazard statements

Suspected of damaging fertility or the unborn child
Flammable liquid and vapor

**Appearance** No information available**Physical state** Liquid**Odor** characteristic**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/clothing and eye/face protection

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container closed

Ground and bond container and receiving equipment

Use explosion-proof electrical/ ventilating / lighting/ .? / equipment

Use only non-sparking tools

Take action to prevent static discharges

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

In case of fire: Use CO₂, dry chemical, or foam to extinguish**Precautionary Statements - Storage**

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

OTHER INFORMATION

May be harmful in contact with skin. Very toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients**Substance****Mixture**

Chemical name	CAS No	Weight-%	Trade secret
Octamethylcyclotetrasiloxane	556-67-2	>=95	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures**Description of first aid measures****General advice**

IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

Inhalation	Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Large Fire	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	Risk of ignition. Vapors may form explosive mixture with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazardous combustion products	Carbon dioxide (CO ₂). Carbon monoxide. Formaldehyde. Silicon dioxide.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.
Special protective equipment and precautions for fire-fighters	Do not allow run-off from fire-fighting to enter drains or water courses.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other information	Ventilate the area.

For emergency responders Use personal protection recommended in Section 8.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information. See Section 12 for additional Ecological Information.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Ensure adequate ventilation. Restrict access to stockrooms. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up.

8. Exposure controls/personal protection

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Impervious gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Wear protective nitrile rubber gloves	>=0.4 mm	>= 480 minutes

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection Respiratory protection necessary at: insufficient ventilation. exposure limit overshoot. insufficient exhaust. Handling larger quantities. Wear positive pressure self-contained breathing apparatus (SCBA). /. Filtering device (full mask or mouthpiece) with filter.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

General hygiene considerations Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	Colorless
Odor	characteristic
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	
pH (as aqueous solution)	No data available	No information available
Melting point/freezing point	approx. 17 °C / 62.6 °F	
Boiling point / boiling range	approx. 170 °C / 338 °F	
Flash Point	approx. 50 °C / 122 °F	CC (closed cup)
Evaporation Rate	No data available	No information available
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	7.90 Vol-%	
Lower flammability limit:	0.50 Vol-%	
Vapor pressure	approx. 1.0 hPa	@ 20°C
	approx. 7.4 hPa	@ 50°C
Vapor Density	No data available	None known
Relative Density	approx. 0.960 g/cm ³	@ 20°C
Water solubility	No data available	@ 20°C
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition Temperature	approx. 400 °C / 752 °F	
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	@ 40°C
	approx. 2.2 mm ² /s	@ 25°C
Dynamic viscosity	No data available	None known

Other information

Explosive properties	No information available
Oxidizing properties	No information available

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No data available
Bulk Density	No data available

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to Avoid	Heat, flames and sparks.
Incompatible materials	Acids. Bases. Incompatible with oxidizing agents.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO ₂). Carbon monoxide. Nitrogen oxides (NO _x). Silicon dioxide. If this product is heated to > 150 °C, trace quantities of formaldehyde may be released, and adequate ventilation is required.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal)	2,400.00 mg/kg
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Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Octamethylcyclotetrasiloxane 556-67-2	> 4800 mg/kg (Rat OECD 401)	> 2.5 ml/kg (Rabbit)	> 36 mg/l (Rat 4h)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
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Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.
STOT - single exposure	Based on available data, the classification criteria are not met.
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Octamethylcyclotetrasiloxane (556-67-2)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	IC50	> 0.022 mg/L	96 hours	
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	> 0.022 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilization Test	Daphnia magna	EC50	> 0.015 mg/L	48 hours	
OECD Test No. 211: Daphnia magna Reproduction Test	Daphnia magna	NOEC	approx. 0.008 mg/L	504 hours	

Persistence and degradability No information available.

Product Information

Biodegradation No information available
BOD No information available
ThCO2 No information available
DOC No information available

Chemical name	Biodegradation
Octamethylcyclotetrasiloxane 556-67-2	Biodegradation: approx. 3.7 % (696h OECD 310)

Bioaccumulation

Bioaccumulation (factor) No information available

Component Information

Chemical name	Partition coefficient
Octamethylcyclotetrasiloxane 556-67-2	6.48

Mobility No information available.

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Contaminated packages must be completely emptied and can be re-used following proper cleaning. Clean IBCs or drums at approved facility. Packaging which cannot be properly cleaned must be disposed of. Handle contaminated packages in the same way as the product itself.

US EPA Waste Number D001.

14. Transport information

DOT

UN/ID no UN1993
Proper shipping name Flammable liquids, n.o.s.
Transport hazard class(es) 3
Packing group III
Special Provisions B1, B52, IB3, T4, TP1, TP29
DOT Marine Pollutant I
Marine pollutant Octamethylcyclotetrasiloxane
Description UN1993, Flammable liquids, n.o.s. (Octamethylcyclotetrasiloxane), 3, III, Marine pollutant
Emergency Response Guide Number 128
Note: This material can be classified as a combustible liquid according to 49 CFR §173.150(f)(1). This provision does not apply to transportation by vessel or aircraft, except where other means of transportation is impractical.

IATA

UN number or ID number UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Transport hazard class(es) 3
Packing group III
IATA Technical Name Octamethylcyclotetrasiloxane
Description UN1993, Flammable liquid, n.o.s. (Octamethylcyclotetrasiloxane), 3, III
Special Provisions A3
ERG Code 3L
Limited quantity (LQ) 10 L

IMDG

UN number or ID number	UN1993
Proper Shipping Name	Flammable liquid, n.o.s.
Transport hazard class(es)	3
Packing group	III
Description	UN1993, Flammable liquid, n.o.s. (Octamethylcyclotetrasiloxane), 3, III, (50°C c.c.), Marine pollutant
EmS-No	F-E, S-E
Special Provisions	223, 274, 955
Marine pollutant	P
Limited quantity (LQ)	5 L

15. Regulatory information

International Inventories

TSCA	Complies.
DSL/NDSL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies.
IECSC	Complies.
KECL	Complies.
PICCS	Complies.
AICS	Complies.
NZIoC	Complies.
TCSI	Contact supplier for inventory compliance status.

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and

Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label information

EPA Pesticide registration number Not applicable

16. Other information

NFPA	Health hazards 2	Flammability 2	Instability 0	Special hazards -
HMIS	Health hazards 2 * 1	Flammability 2	Physical hazards 0	PERSONAL PROTECTION X

Chronic Hazard Star Legend

* = Chronic Health Hazard

Emergency telephone number

Mexico	+52 55 5004 8763 (NCEC 24/7)
Chile	+56 2 2582 9336 (NCEC 24/7)
Colombia	+57 601 508 7337 (NCEC 24/7)
Argentina	+54 11 5984 3690 (NCEC 24/7)

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend SECTION 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGl(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

Revision date	04-May-2023
Revision note	No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.