



Material Safety Data Sheet

DOW QUIMICA MEXICANA S.A. DE C.V.

Product name: SYL-OFF™ 7215 Crosslinker

Issue Date: 27.01.2020

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DOW QUIMICA MEXICANA S.A. DE C.V. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: SYL-OFF™ 7215 Crosslinker

Recommended use of the chemical and restrictions on use

Identified uses: Vulcanising agents

COMPANY IDENTIFICATION

DOW QUIMICA MEXICANA S.A. DE C.V.
AV PASEO DE LA REFORMA NO. 243
PISO 8, COLONIA CUAUHTEMOC
06500 DELEGACION CUAUHTEMOC CIUDAD DE MEXICO
MEXICO

Customer Information Number:

(55) 11-5184-8722
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: (52) 241-412-7143

Local Emergency Contact: (52) 241-412-7143

2. HAZARDS IDENTIFICATION

This product has been classified in accordance with the Globally Harmonized System of Classification and Labeling (GHS).

Hazard classification

Flammable liquids - Category 3

Skin irritation - Category 3



Signal word: **WARNING!**

Hazards

H226 Flammable liquid and vapour.
H316 Causes mild skin irritation.

Precautionary statements**Prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P234 Keep only in original container.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, and/or lighting equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P280 Wear protective gloves, protective clothing, eye protection and/or face protection.

Response

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P332 + P313 If skin irritation occurs: Get medical advice and/or attention.
P370 + P378 In case of fire: Use alcohol-resistant foam, carbon dioxide or water mist to extinguish.

Storage

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal

P501 Dispose of contents and/or container to an approved waste disposal plant.

Other hazards

May generate flammable hydrogen gas. Avoid contact with water, alcohols, acidic, basic, or oxidizing materials.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: SiH Functional Siloxane

This product is a mixture.

Component	CASRN	Concentration
3,5-Dimethylhex-1-yn-3-ol	107-54-0	>= 5.0 - <= 7.0 %

4. FIRST AID MEASURES

Description of first aid measures**General advice:**

If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing; consult a physician.

Skin contact: Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Water spray. Alcohol-resistant foam. Carbon dioxide (CO₂).

Extinguishing Media to Avoid: Dry chemical. High volume water jet. Do not use direct water stream..

Special hazards arising from the substance or mixture

Hazardous combustion products: Silicon oxides. Carbon oxides.

Unusual Fire and Explosion Hazards: Flash back possible over considerable distance.. Applying foam will release significant amounts of hydrogen gas that can be trapped under the foam blanket.. Exposure to combustion products may be a hazard to health.. Vapours may form explosive mixtures with air..

Advice for firefighters

Fire Fighting Procedures: Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.. Do not use a solid water stream as it may scatter and spread fire..

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not allow extinguishing medium to contact container contents. Most fire extinguishing media will cause hydrogen evolution, and once the fire is put out, may accumulate in poorly ventilated or confined areas and result in flash fire or explosion if ignited. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.. Use personal protective equipment..

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Remove all sources of ignition. Use personal protective equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Vapor explosion hazard. Keep out of sewers. Follow safe handling advice and personal protective equipment recommendations.

Removal of ignition sources: Keep away from sources of ignition.

Dust Control: Not applicable

Environmental precautions: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up: Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Materials in contact with water, moisture, acids or bases have the potential to generate hydrogen gas. Recovered material should be stored in a vented container. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container. See sections: 7, 8, 11, 12 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not get on skin or clothing. Avoid inhalation of vapour or mist. Do not swallow. Avoid contact with eyes. Keep container tightly closed. Keep away from water. Protect from moisture. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Non-sparking tools should be used. Handle in accordance with good industrial hygiene and safety practice. Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation. Ground and bond container and receiving equipment.

Conditions for safe storage: Keep in properly labelled containers. Store in original container. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition. Product may evolve minute quantities of flammable hydrogen gas which can accumulate. Adequately ventilate to maintain vapors well below

flammability limits and exposure guidelines. Do not repackage. Clogged container vents may increase pressure build up. Store in a closed container.

Do not store with the following product types: Strong oxidizing agents. Organic peroxides. Flammable solids. Pyrophoric liquids. Pyrophoric solids. Self-heating substances and mixtures. Substances and mixtures, which in contact with water, emit flammable gases. Explosives. Gases. Unsuitable materials for containers: Do not store in or use containers except the original product package.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Natural rubber ("latex"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state

liquid

Color	colourless
Odor	characteristic
Odor Threshold	No data available
pH	No data available
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	> 35 °C
Flash point	closed cup 53 °C
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	Not applicable
Flammability (liquids)	Ignitable (see flash point)
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	No data available
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	0.96
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic Viscosity	25 mm ² /s at 25 °C
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available
Particle size	Not applicable

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Can react with strong oxidizing agents. When heated to temperatures above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapours. Safe handling conditions may be maintained by keeping vapour concentrations within the occupational exposure limit for formaldehyde. Vapours may form explosive mixture with air. Product may evolve flammable hydrogen gas on contact with water, alcohols, acidic or basic materials, many metals or metallic compounds and can form explosive mixtures in air. Hazardous decomposition products will be formed at elevated temperatures. Flammable liquid and vapour.

Conditions to avoid: Heat, flames and sparks. Exposure to moisture

Incompatible materials: Oxidizing agents

Hazardous decomposition products:

Decomposition products can include and are not limited to: Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Information on likely routes of exposure

Inhalation, Eye contact, Skin contact, Ingestion.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s):

LD50, Rat, > 2,000 mg/kg Estimated.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

LD50, Rat, male and female, > 300 mg/kg Estimated.

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s):

LD50, Rabbit, > 2,000 mg/kg Estimated.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

LD50, Rabbit, > 1,000 mg/kg Estimated.

Acute inhalation toxicity

Brief exposure (minutes) is not likely to cause adverse effects.

As product: The LC50 has not been determined.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

LC50, Rat, male, 4 Hour, dust/mist, > 4.9 mg/l No deaths occurred at this concentration.

Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

For similar material(s):

Brief contact may cause skin irritation with local redness.

Serious eye damage/eye irritation

May cause slight eye irritation.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

For similar material(s):

May cause moderate eye irritation.

May cause corneal injury.

Sensitization

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

Based on physical properties, not likely to be an aspiration hazard.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

No relevant data found.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

No relevant data found.

Carcinogenicity

No relevant data found.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

No relevant data found.

Teratogenicity

No relevant data found.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

No relevant data found.

Reproductive toxicity

No relevant data found.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

No relevant data found.

Mutagenicity

No relevant data found.

Information for components:

3,5-Dimethylhex-1-yn-3-ol

In vitro genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

3,5-Dimethylhex-1-yn-3-ol

Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

For similar material(s):

LC50, Pimephales promelas (fathead minnow), 96 Hour, > 100 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), Static, 48 Hour, > 100 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

For similar material(s):

EC50, Desmodesmus subspicatus (green algae), 72 Hour, > 100 mg/l

Persistence and degradability**3,5-Dimethylhex-1-yn-3-ol**

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Pass

Biodegradation: 97 %

Exposure time: 11 d

Method: OECD Test Guideline 301D

Bioaccumulative potential**3,5-Dimethylhex-1-yn-3-ol**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 1.85 estimated

Mobility in soil**3,5-Dimethylhex-1-yn-3-ol**

No relevant data found.

Results of PBT and vPvB assessment**3,5-Dimethylhex-1-yn-3-ol**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Other adverse effects**3,5-Dimethylhex-1-yn-3-ol**

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR

MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10 Regulatory Information, MSDS Section 15

Treatment and disposal methods of used packaging: Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Proper shipping name	FLAMMABLE LIQUID, N.O.S.(Polysiloxane, 3,5-Dimethylhex-1-yn-3-ol)
UN number	UN 1993
Class	3
Packing group	III

Classification for SEA transport (IMO-IMDG):

Proper shipping name	FLAMMABLE LIQUID, N.O.S.(Polysiloxane, 3,5-Dimethylhex-1-yn-3-ol)
UN number	UN 1993
Class	3
Packing group	III
Marine pollutant	No
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Flammable liquid, n.o.s.(Polysiloxane, 3,5-Dimethylhex-1-yn-3-ol)
UN number	UN 1993
Class	3
Packing group	III

Further information:

VENTED PACKAGES ARE FORBIDDEN FOR AIR TRANSPORT.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service

representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

It is recommended the customer to check in the location of use of this product whether it is specifically regulated for human perusal or veterinary applications, as food and pharmaceuticals additives or packaging, domissanitary, and cosmetics, or even as controlled agent recognized as precursor to drug, chemical weapons, and ammunition manufacture.

The communication of the hazards of this product is in accordance with local and international legislations, observing always the most restrictive requirement.

16. OTHER INFORMATION

Hazard Rating System

NFPA

Health	Flammability	Instability
1	2	0

Revision

Identification Number: 4052900 / A233 / Issue Date: 27.01.2020 / Version: 1.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No

1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

The information is considered as correct, but not exhaustive, and will be used only as a guide, which is based in the current knowledge of the substance or mixture, and is applicable to proper safety precautions for the product.

DOW QUIMICA MEXICANA S.A. DE C.V. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

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