

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Revision date:
21/06/2016

Date of issue:
11/11/2013

Version: 2.0

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

1.1. Product identifier

Product form : Substance
Substance name : CAT-41
CAS No : 78-27-3
Synonyms : Inhibitor

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
Use of the substance/mixture : For use with platinum catalyzed elastomer systems. For professional use only.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

NuSil Technology LLC
1050 Cindy Lane
Carpinteria, California 93013
USA
(805) 684-8780
ehs@nusil.com
www.nusil.com

1.4. Emergency telephone number

Emergency : 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (International and
number : Maritime)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302
Acute Tox. 3 (Dermal) H311
Skin Irrit. 2 H315
Eye Irrit. 2 H319

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS06

Signal word (CLP) : Danger
Hazard statements (CLP) : H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (CLP) : P264 - Wash hands, forearms, and other exposed areas thoroughly

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after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear gloves, protective clothing, eye protection, face protection
P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P321 - Specific treatment (see section 4 on this SDS)
P322 - Specific measures (see section 4 on this label)
P330 - Rinse mouth
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local/national regulations

2.3. Other Hazards

Other hazards not contributing to the classification : Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cyclohexanol, 1-ethynyl-	(CAS No) 78-27-3 (EC no) 201-100-9	100	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of H-statements: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after eye contact : Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Toxic in contact with skin. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: This material is harmful orally and can cause adverse health effects or death in significant amounts.
Chronic symptoms	: None known.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray, alcohol foam, dry chemical, carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire. Application of water stream to hot product may cause frothing and increase fire intensity.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: May support combustion. Product will burn if heated to temperatures above its melting point.
Explosion hazard	: Thermal decomposition may generate flammable gas. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Reactivity	: May react with strong oxidizers, increasing risk of fire or explosion.

5.3. Advice for firefighters

Precautionary measures fire	: Exercise caution when fighting any chemical fire. Decomposition products may be flammable.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Do not get in eyes, on skin, or on clothing. Do not breathe dust. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
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6.1.1. For non-emergency personnel

Protective equipment	: Use appropriate personal protection equipment (PPE).
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

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6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.
- Methods for cleaning up : Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : When heated, material emits irritating fumes. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.
- Precautions for safe handling : Take precautionary measures against static discharge. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Do not breathe dust, mist, fumes, or gas.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash hands and forearms thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.
- Storage conditions : Store away from oxidizers, combustible materials, and all ignition sources. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
- Incompatible products : Strong acids. Strong bases. Strong oxidizers. Heavy metal salts.

7.3. Specific end use(s)

For use with platinum catalyzed elastomer systems. For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Gas detectors should be used when flammable gases/vapours may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Ensure all national/local regulations are observed.

Personal protective equipment : Protective clothing. Protective goggles. Gloves. Insufficient ventilation: wear respiratory protection.



Materials for protective clothing : Chemically resistant materials and fabrics.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Chemical safety goggles.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other information : When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 30 -33 °C (86 - 91 °F)
Freezing point	: No data available
Boiling point	: 180 °C (356 °F)
Flash point	: 73 °C (163.4°F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative Density	: 0,967 (Water = 1)
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

May react with strong oxidizers, increasing risk of fire or explosion.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks. Incompatible materials.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers. Heavy metal salts.

10.6. Hazardous decomposition products

Acetylene. Carbon oxides (CO, CO₂). Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Toxic in contact with skin.

CAT-41 (78-27-3)	
ATE CLP (oral)	600,000 mg/kg bodyweight
ATE CLP (dermal)	680,000 mg/kg bodyweight
Cyclohexanol, 1-ethynyl- (78-27-3)	
LD50 oral rat	600 mg/kg
LD50 dermal rabbit	680 mg/kg

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Harmful in contact with skin. Harmful if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified.

Cyclohexanol, 1-ethynyl- (78-27-3)	
LC50 fish 1	215 mg/l (Exposure time: 96 h - Species: Leuciscus idus)
EC50 Daphnia 1	142,54 mg/l (Exposure time: 48 h - Species: Daphnia magna)
ErC50 (algae)	>= 399,45 mg/l (Exposure time: 72 h)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

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Cyclohexanol, 1-ethynyl- (78-27-3)	
Log Pow	1,73

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional information : Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 2811

14.2. UN proper shipping name

Proper Shipping Name (ADR) : TOXIC SOLID, ORGANIC, N.O.S.

Transport document description (ADR) : UN 2811 TOXIC SOLID, ORGANIC, N.O.S. ((Cyclohexanol, 1-ethynyl-)), 6.1, III, (E)

14.3. Transport hazard class(es)

Class (ADR) : 6.1

Danger labels (ADR) : 6.1



14.4. Packing group

Packing group (ADR) : III

14.5. Environmental hazards

Other information : No supplementary information available.

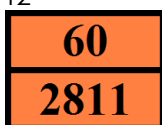
14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 60

Classification code (ADR) : T2

Orange plates :



Special provisions (ADR) : 274, 614

Transport category (ADR) : 2

Tunnel restriction code (ADR) : E

Limited quantities (ADR) : 5kg

Excepted quantities (ADR) : E1

EAC code : 2X

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14.6.2. Transport by sea

EmS-No. (1) : F-A

MFAG-No : 154

EmS-No. (2) : S-A

14.6.3. Air transport

No additional information available

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

CAT-41 is not on the REACH Candidate List

CAT-41 is not on the REACH Annex XIV List

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Section	Section Header	Change	Date Changed
1	Identification of the substance/mixture and of the company/undertaking	Modified.	21/06/2016
2	Hazards identification	Removed DSD/DPD information.	21/06/2016
3	Composition/information on ingredients	Removed DSD/DPD information.	21/06/2016
14	Transport information	Modified.	21/06/2016
15.1	EU-Regulations	Modified.	21/06/2016

Revision date : 21/06/2016

Data sources : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation

Nusil EU GHS SDS

We believe that the information contained herein is current as of the date of this Safety Data Sheet, and is offered in good faith. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of Nusil Technology, it is the user's obligation to determine the conditions of safe use of the product.