SAFETY DATA SHEET
according to the Hazardous Products Regulations

RTV SILICONE GASKET, Sensor-safe, Black, 220 g

Version	Revision Date:	SDS Number:	Date of last issue: 08/08/2025
2.0	11/04/2025	11568592-00002	Date of first issue: 08/08/2025

SECTION 1. IDENTIFICATION

Product name	:	RTV SILICONE GASKET, Sensor-safe, Black, 220 g
Product code	:	890.913000
Other means of identification	:	No data available

Manufacturer or supplier's details

Company name of supplier	:	Würth Canada Limited/Limitée
Address	:	345 Hanlon Creek Blvd GUELPH, ON N1C 0A1
Telephone	:	1-800-263-5002
Telefax	:	1-905-564-3671
Emergency telephone	:	Emergencies involving a spill, fire, explosion or exposure: CHEMTREC (24/7): 1-800-424-9300 Urgences impliquant un déversement, incendie, explosion ou exposition: CHEMTREC (24/7): 1-800-424-9300
E-mail address	:	prodsafe@wurth.ca

Recommended use of the chemical and restrictions on use

Recommended use	:	Sealant
Restrictions on use	:	Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Aerosols	:	Category 3
Skin sensitization	:	Sub-category 1A
Carcinogenicity	:	Category 1B
Reproductive toxicity	:	Category 2
Specific target organ toxicity - repeated exposure	:	Category 2 (Blood)
Simple Asphyxiant	:	Category 1

GHS label elements

Hazard pictograms :

Signal Word	:	Danger
Hazard Statements	:	H229 Pressurized container: May burst if heated.

H317 May cause an allergic skin reaction.
H350 May cause cancer.
H361f Suspected of damaging fertility.
H373 May cause damage to organs (Blood) through prolonged or repeated exposure.
May displace oxygen and cause rapid suffocation.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Do not pierce or burn, even after use.
P260 Do not breathe spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical attention.
P333 + P313 If skin irritation or rash occurs: Get medical attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C (122 °F).

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	N-[bis[(butan-2-ylidene-amino)oxy]-methylsi-	22984-54-9	>= 1 - < 5 *

	lyl]oxybutan-2-imine		
1,1-Difluoroethane	Hydrofluorocarbon 152A	75-37-6	>= 1 - < 5 *
3-(2-Aminoethylamino) propyltrimethoxysilane	1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]-	1760-24-3	>= 0.1 - < 1 *
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime	N-[Bis[[(E)-butan-2-ylidene-amino]oxy]-ethenylsilyl]oxybutan-2-imine	2224-33-1	>= 0.1 - < 1 *
Methyl-tri(ethylmethylketoxime)silane isomers and oligomers	No data available	Not Assigned	>= 0.1 - < 1 *
Dimethyl Cyclosiloxanes	Cyclosiloxanes, di-Me	69430-24-6	>= 0.1 - < 1 *

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical attention immediately.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.
May cause cancer.
Suspected of damaging fertility.
May cause damage to organs through prolonged or repeated exposure.
May displace oxygen and cause rapid suffocation.

Gas reduces oxygen available for breathing.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)
Silicon oxides
Fluorine compounds

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Ventilate the area.
Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
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	:	Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. 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. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	If sufficient ventilation is unavailable, use with local exhaust ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Do not breathe spray. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Keep container tightly closed. Keep away from water. Protect from moisture. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	:	Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sunlight.
Materials to avoid	:	Do not store with the following product types: Self-reactive substances and mixtures Organic peroxides Oxidizing agents Flammable solids Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures which in contact with water emit flammable gases Explosives Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parame-ters / Permissible concentration	Basis
Ethyl methyl ketoxime	96-29-7	TWA	10 ppm	US WEEL

Engineering measures : Processing may form hazardous compounds (see section 10).
Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Self-contained breathing apparatus

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety glasses

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	paste
Propellant	:	1,1-Difluoroethane
Color	:	black
Odor	:	slight
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not classified as a flammability hazard
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	Not applicable
Relative vapor density	:	Not applicable
Relative density	:	1.04
Density	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

Particle characteristics
Particle size : Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Use at elevated temperatures may form highly hazardous compounds.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
Can react with strong oxidizing agents.
Methyl Ethyl Ketoxime (MEKO) is formed upon contact with water or humid air.
Hazardous decomposition products will be formed upon contact with water or humid air.

Conditions to avoid : Exposure to moisture.
Incompatible materials : Oxidizing agents
Water

Hazardous decomposition products
Contact with water or humid air : Ethyl methyl ketoxime

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Product:
Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Acute oral toxicity : LD50 (Rat): 2,453 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402

1,1-Difluoroethane:

Acute inhalation toxicity : LC50 (Rat, male): > 437500 ppm
Exposure time: 4 h
Test atmosphere: gas

Lowest observed adverse effect concentration (Dog): 150000 ppm
Test atmosphere: gas
Remarks: Cardiac sensitization

3-(2-Aminoethylamino) propyltrimethoxysilane:

Acute oral toxicity : LD50 (Rat, female): 1,897 mg/kg
Method: OPPTS 870.1100

Acute toxicity estimate (Humans): > 300 - 2,000 mg/kg
Method: Expert judgment
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): 1.49 - 2.44 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OPPTS 870.1300

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OPPTS 870.1200

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 425

Acute dermal toxicity : LD50 (Rat): > 2,009 mg/kg
Method: OECD Test Guideline 402

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Acute oral toxicity : Acute toxicity estimate: 100 mg/kg
Method: Expert judgment
Remarks: Based on data from similar materials

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg
Method: Expert judgment
Remarks: Based on data from similar materials

Dimethyl Cyclosiloxanes:

Acute oral toxicity	:	LD50 (Rat): > 2,000 mg/kg Remarks: Based on data from similar materials
Acute inhalation toxicity	:	LC50: 36 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Remarks: Based on data from similar materials
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

3-(2-Aminoethylamino) propyltrimethoxysilane:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Mild skin irritation

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Dimethyl Cyclosiloxanes:

Species	:	Rabbit
Result	:	No skin irritation
Remarks	:	Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Species	:	Rabbit
Result	:	Irritation to eyes, reversing within 21 days
Method	:	OECD Test Guideline 405

3-(2-Aminoethylamino) propyltrimethoxysilane:

Species	:	Rabbit

Result	:	Irreversible effects on the eye
Method	:	OECD Test Guideline 405

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Method	:	OECD Test Guideline 405

Dimethyl Cyclosiloxanes:

Species	:	Rabbit
Result	:	No eye irritation
Remarks	:	Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Result	:	positive
Assessment	:	Probability or evidence of skin sensitization in humans

3-(2-Aminoethylamino) propyltrimethoxysilane:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	positive
Assessment	:	Probability or evidence of high skin sensitization rate in humans

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Result	:	positive
Remarks	:	Based on data from similar materials
Assessment	:	Probability or evidence of skin sensitization in humans

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Test Type	:	Buehler Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Result	:	positive
Remarks	:	Based on data from similar materials
Assessment	:	Probability or evidence of skin sensitization in humans

Dimethyl Cyclosiloxanes:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative
Remarks	:	Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative

1,1-Difluoroethane:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: The test was conducted according to guideline Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 490 Result: negative Remarks: The test was conducted according to guideline Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative Remarks: The test was conducted according to guideline
Genotoxicity in vivo	:	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Rat Application Route: inhalation (gas) Method: OECD Test Guideline 474 Result: negative Remarks: The test was conducted according to guideline

3-(2-Aminoethylamino) propyltrimethoxysilane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: In vitro sister chromatid exchange assay in mammalian cells
Method: OPPTS 870.5900
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: positive

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Genotoxicity in vitro : Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Method: OECD Test Guideline 482
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Dimethyl Cyclosiloxanes:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials

Carcinogenicity

May cause cancer.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Species	:	Rat
Application Route	:	inhalation (vapor)
Exposure time	:	26 Months
Result	:	positive
Remarks	:	Based on data from similar materials
Carcinogenicity - Assessment	:	Sufficient evidence of carcinogenicity in animal experiments

1,1-Difluoroethane:

Species	:	Rat
Application Route	:	inhalation (vapor)
Exposure time	:	104 weeks
Method	:	OECD Test Guideline 453
Result	:	negative
Remarks	:	The test was conducted equivalent or similar to guideline

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Species	:	Rat
Application Route	:	inhalation (vapor)
Exposure time	:	26 Months
Result	:	positive
Remarks	:	Based on data from similar materials
Carcinogenicity - Assessment	:	Sufficient evidence of carcinogenicity in animal experiments

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Species	:	Rat
Application Route	:	inhalation (vapor)
Exposure time	:	26 Months
Result	:	positive
Remarks	:	Based on data from similar materials
Carcinogenicity - Assessment	:	Sufficient evidence of carcinogenicity in animal experiments

Reproductive toxicity

Suspected of damaging fertility.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

1,1-Difluoroethane:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Inhalation
Method: OECD Test Guideline 422
Result: negative
Remarks: The test was conducted equivalent or similar to guideline

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: inhalation (vapor)
Method: OECD Test Guideline 414
Result: negative
Remarks: The test was conducted equivalent or similar to guideline

3-(2-Aminoethylamino) propyltrimethoxysilane:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative
Remarks: Based on data from similar materials

Dimethyl Cyclosiloxanes:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Inhalation
Method: OPPTS 870.3800
Result: positive
Remarks: Based on data from similar materials

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT-single exposure

May displace oxygen and cause rapid suffocation.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Assessment : May cause drowsiness or dizziness.
Remarks : Based on data from similar materials

1,1-Difluoroethane:

Assessment : May cause drowsiness or dizziness.

3-(2-Aminoethylamino) propyltrimethoxysilane:

Routes of exposure : Ingestion
Target Organs : Central nervous system, optic nerve
Assessment : May cause damage to organs.
Remarks : Based on data from similar materials

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Assessment : May cause drowsiness or dizziness.
Remarks : Based on data from similar materials

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Assessment : May cause drowsiness or dizziness.
Remarks : Based on data from similar materials

STOT-repeated exposure

May cause damage to organs (Blood) through prolonged or repeated exposure.

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Routes of exposure : Ingestion
Target Organs : Blood
Assessment : Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less.
Remarks : Based on data from similar materials

3-(2-Aminoethylamino) propyltrimethoxysilane:

Routes of exposure : inhalation (dust/mist/fume)
Target Organs : Respiratory Tract
Assessment : Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Routes of exposure : Ingestion
Target Organs : Blood
Assessment : Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.
Remarks : Based on data from similar materials

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Routes of exposure : Ingestion
Target Organs : Blood
Assessment : Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Remarks : Based on data from similar materials

Repeated dose toxicity

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Species : Rat
LOAEL : > 1.7 mg/l
Application Route : inhalation (vapor)
Exposure time : 26 Months
Remarks : Based on data from similar materials

Species : Rat, male
NOAEL : > 10 - 100 mg/kg
Application Route : Ingestion
Exposure time : 13 Weeks
Remarks : Based on data from similar materials

1,1-Difluoroethane:

Species : Rat
NOAEL : 67.485 mg/l
Application Route : inhalation (vapor)
Exposure time : 104 Weeks
Method : OECD Test Guideline 453
Remarks : The test was conducted equivalent or similar to guideline

3-(2-Aminoethylamino) propyltrimethoxysilane:

Species : Rat
NOAEL : >= 500 mg/kg
Application Route : Ingestion
Exposure time : 44 Days

Species : Rat
NOAEL : 0.015 mg/l
LOAEL : 0.045 mg/l
Application Route : inhalation (dust/mist/fume)
Exposure time : 13 Weeks
Method : OECD Test Guideline 413

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Species : Rat
LOAEL : > 1.7 mg/l
Application Route : inhalation (vapor)
Exposure time : 26 Months
Remarks : Based on data from similar materials

Species : Rat, male
NOAEL : > 10 - 100 mg/kg
Application Route : Ingestion

Exposure time	:	13 Weeks
Remarks	:	Based on data from similar materials

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Species	:	Rat
LOAEL	:	> 1.7 mg/l
Application Route	:	inhalation (vapor)
Exposure time	:	26 Months
Remarks	:	Based on data from similar materials

Species	:	Rat, male
NOAEL	:	> 10 - 100 mg/kg
Application Route	:	Ingestion
Exposure time	:	13 Weeks
Remarks	:	Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Toxicity to fish	:	EC50 (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 120 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 94 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 30 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: Based on data from similar materials
Toxicity to microorganisms	:	EC50: > 1,000 mg/l Exposure time: 3 h

Method: OECD Test Guideline 209

1,1-Difluoroethane:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

3-(2-Aminoethylamino) propyltrimethoxysilane:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Method: Directive 67/548/EEC, Annex V, C.1.
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10 - 100 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Method: Directive 67/548/EEC, Annex V, C.2.
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1 - 10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): > 1 mg/l
Exposure time: 21 d
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC10 (Pseudomonas putida): > 1 mg/l
Exposure time: 16 h
Method: DIN 38 412 Part 8
Remarks: Based on data from similar materials

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	ErC50 (Scenedesmus capricornutum (fresh water algae)): > 10 - 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials NOEC (Scenedesmus capricornutum (fresh water algae)): > 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: Based on data from similar materials
Toxicity to microorganisms	:	EC50 (Pseudomonas putida): > 100 mg/l Exposure time: 17 h Remarks: Based on data from similar materials

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Toxicity to fish	:	LC50 (Oryzias latipes (Japanese medaka)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	ErC50 (Scenedesmus capricornutum (fresh water algae)): > 10 - 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials NOEC (Scenedesmus capricornutum (fresh water algae)): > 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 21 d Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 100 mg/l
Exposure time: 17 h
Remarks: Based on data from similar materials

Dimethyl Cyclosiloxanes:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.014 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials
No toxicity at the limit of solubility.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.015 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials
No toxicity at the limit of solubility.

Persistence and degradability

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 28 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

1,1-Difluoroethane:

Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301D
Remarks: The test was conducted according to guideline
Based on data from similar materials

3-(2-Aminoethylamino) propyltrimethoxysilane:

Biodegradability : Result: Not readily biodegradable.
Method: Regulation (EC) No. 440/2008, Annex, C.4-A
Remarks: Based on data from similar materials

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Biodegradability : Result: not rapidly degradable
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301A
Remarks: Based on data from similar materials

Dimethyl Cyclosiloxanes:

Biodegradability : Result: Not readily biodegradable.
Remarks: Based on data from similar materials

Bioaccumulative potential

Components:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime:

Partition coefficient: n-octanol/water : log Pow: 0.59 - 0.65

1,1-Difluoroethane:

Partition coefficient: n-octanol/water : log Pow: 0.75

3-(2-Aminoethylamino) propyltrimethoxysilane:

Partition coefficient: n-octanol/water : log Pow: -3.3
Remarks: Calculation

Butan-2-one O,O',O''-(vinylsilylidyne)trioxime:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 0.5 - 2.5
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water : log Pow: 0.59 - 0.65

Dimethyl Cyclosiloxanes:

Partition coefficient: n-octanol/water : log Pow: > 4

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Dispose of in accordance with local regulations.

Contaminated packaging : Please ensure aerosol cans are sprayed completely empty (including propellant)
Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 1950

Proper shipping name	:	AEROSOLS
Class	:	2.2
Packing group	:	Not assigned by regulation
Labels	:	2.2
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 1950
Proper shipping name	:	Aerosols, non-flammable
Class	:	2.2
Packing group	:	Not assigned by regulation
Labels	:	Non-flammable, non-toxic Gas
Packing instruction (cargo aircraft)	:	203
Packing instruction (passenger aircraft)	:	203

IMDG-Code

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS
Class	:	2.2
Packing group	:	Not assigned by regulation
Labels	:	2.2
EmS Code	:	F-D, S-U
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

TDG

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS
Class	:	2.2
Packing group	:	Not assigned by regulation
Labels	:	2.2
ERG Code	:	126
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

Volatile organic compounds (VOC) content

Canada - Volatile Organic Compound Concentration Limits for Certain Products Regulations
VOC content: 3.96 % / 41.18 g/l

International Regulations

Montreal Protocol : 1,1-Difluoroethane

The ingredients of this product are reported in the following inventories:

CA. DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

Canadian lists

No substances are subject to CEPA Section 84 Ministerial Conditions.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / TWA : 8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; 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 Standardization; 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 Organization 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; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; 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, Authorization and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; 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

Sources of key data used to : Internal technical data, data from raw material SDSs, OECD

compile the Material Safety Data Sheet		eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/
Revision Date	:	11/04/2025
Date format	:	mm/dd/yyyy

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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