
DOUGLAS PRODUCTS encourages and expects you to read and understand the entire 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.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: ProFume®

Chemical name of the substance: Sulphuryl fluoride

CASRN: 2699-79-8

EC-No.: 220-281-5

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

Identified uses: Biocidal product Plant Protection Product

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION

DOUGLAS BLG BVBA

Avenue Marnix 23, 5th Floor

1000 Brussels, BELGIUM

Customer Information: Customer@douglasproducts.com

1.4 EMERGENCY TELEPHONE NUMBER

Ireland

24-Hour Emergency Contact: 0-19014670

Healthcare Professionals: +353 (01) 809 2566 (24 hour service)

Members of Public: +353 (01) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)

UK

Douglas Products 24-Hour Emergency Contact: +44 (0)870 8200418

Members of Public: National Poison Centre: 111 (24 hour service)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Gases under pressure - H280

Acute toxicity - Category 2 - Inhalation - H330

Specific target organ toxicity - single exposure - Category 1 - Inhalation - H370

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation - H373

Acute aquatic toxicity - Category 1 - H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Hazard pictograms



Signal word: **DANGER**

Hazard statements

H280	Contains gas under pressure; may explode if heated.
H330	Fatal if inhaled.
H370	Causes damage to organs (Kidney) if inhaled.
H373	May cause damage to organs (Nervous system, Respiratory system, Kidney) through prolonged or repeated exposure if inhaled.
H400	Very toxic to aquatic life.

Precautionary statements

P260	Do not breathe gas.
P270	Do not eat, drink or smoke when using this product.
P284	Wear respiratory protection.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor/ physician.
P308	IF exposed or concerned:
P314	Get medical advice/ attention if you feel unwell.
P405	Store locked up.
P410 + P403	Protect from sunlight. Store in a well-ventilated place.

Supplemental information

EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other hazards

Based on available data, this substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Based on available data, this substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

This product is a substance.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 2699-79-8 EC-No. 220-281-5 Index-No. 009-015-00-7	—	99.8%	Sulphuryl fluoride	Press. Gas H280 Acute Tox. - 2 - H330 STOT SE - 1 - H370 STOT RE - 2 - H373 Aquatic Acute - 1 - H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel. If the person is not breathing and has no pulse, consider cardiopulmonary resuscitation (CPR); use pocket resuscitation mask, bag valve mask etc., to avoid risk of exposing the rescuer.

Skin contact: If liquid is on skin or on clothing: Immediately apply water to contaminated area of clothing before removing. Once area has thawed, remove contaminated clothing, shoes, and other items covering skin. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. In case of frostbite, immediately flush skin with plenty of water for 15 minutes. Seek medical attention. Suitable emergency safety shower facility should be immediately available.

Eye contact: In case of frostbite, immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention promptly, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed: It is predicted that persons exposed to sulfur dioxide gas will show little evidence of intoxication at first, unless the concentration is very high (greater than 400 ppm). Early symptoms of exposure to sulfur dioxide are respiratory irritation and central nervous system depression. Excitation may follow. Slowed movement, reduced awareness, and slow or garbled speech may be noted. May cause asthma-like (reactive airways) symptoms.

Exposure to the sulfur dioxide liquid - may cause frostbite to eyes and skin.

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.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. Sulfuryl fluoride is a gas which has no warning properties such as odor or eye irritation. The prediction of possible human effects is based in part on observations made on laboratory animals. Treat for frostbite if present (eyes, skin) with gentle rewarming by water irrigation for at least 15 minutes. It is predicted that persons exposed to sulfuryl fluoride will show little evidence of intoxication at first, unless the concentration is very high (greater than 400 ppm). Early symptoms of exposure to sulfuryl fluoride are respiratory irritation and central nervous system depression. Excitation may follow. Slowed movement, reduced awareness, and slow or garbled speech may be noted. It is essential to keep such an individual at bed rest for at least 24 hours. Clinical observations should be directed at the pulmonary, hepatic, and renal systems. Prolonged exposure can produce lung irritation, pulmonary edema, nausea, and abdominal pain. Repeated exposure to high concentrations can result in significant lung and kidney damage. Convulsions may ensue with respiratory arrest being the terminal event. Assisted respiration may be necessary. Clinical observation is essential. There is no known antidote for overexposure to sulfuryl fluoride. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Consider administering a complete aerosol corticosteroid metered dose inhaler (100-150 shots) or equivalent as initial preventive treatment for incipient pulmonary edema. Consider administering 250-1000 mg prednisolone IV on the first day of treatment. Treat for frostbite, if present. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the label with you when calling a poison control center or doctor, or going for treatment. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

Unsuitable extinguishing media: no data available

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Fire conditions may cause this product to decompose evolving hydrogen fluoride, oxides of sulfur and other potential noxious or toxic gases.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation.

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers,

boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Non-emergency responders

Isolate area. Keep personnel out of low areas. Keep upwind of spill. Ventilate area of leak or spill. Use appropriate safety equipment as follows;

Eye/face protection:

Gas - Safety glasses (with side shields) consistent with EN 166 or equivalent

Liquid (condensed gas) - Chemical goggles consistent with EN 166 or equivalent

Skin protection

Hand protection: Chemical protective gloves should not be needed when handling this material.

Skin contact should be minimized.

Other protection:

Wear clean, body-covering clothing.

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, use an approved respirator. When respiratory protection is required, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

Emergency responders

Respiratory protection:

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus

6.2 Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

6.3 Methods and materials for containment and cleaning up: Isolate area until gas has dispersed. Small spills: Knock down and dilute vapors with water fog or spray. Apply vapor suppression foams until spill can be cleaned up. Use non-sparking tools in cleanup operations. Large spills: Contact Douglas Products for clean-up assistance.

6.4 Reference to other sections: Refer to Section 8: Exposure Control and Personal Protection and Section 13: Disposal Considerations for further details.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling: Keep out of reach of children. Avoid contact with eyes, skin, and clothing. Do not swallow. Do not breathe vapour. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. See Section 8: Exposure Control and Personal Protection.

7.2 Conditions for safe storage, including any incompatibilities: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

7.3 Specific end use(s): Refer to product label.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Sulphuryl fluoride	ACGIH	TWA (8 hour)	5 ppm
	ACGIH	STEL (15 minute)	10 ppm
	ACGIH	TWA (8 hour)	BEI
	ACGIH	STEL (15 minute)	BEI
	UK EH40/2005 WEL	TWA (8 hour)	21 mg/m ³ 5 ppm
	UK EH40/2005 WEL	STEL (15 minute)	42 mg/m ³ 10 ppm

8.2 Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only in enclosed systems or with local exhaust ventilation. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. Lethal concentrations may exist in areas with poor ventilation.

Individual protection measures

Eye/face protection: For handling the gas, wear safety glasses (with side shields). When contact with the liquid (condensed gas) is possible, wear chemical goggles. Safety glasses (with side shields) should be consistent with EN 166 or equivalent. Chemical goggles should be consistent with EN 166 or equivalent.

Skin protection

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

Other protection: Wear clean, body-covering clothing.

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, use an approved respirator. When respiratory protection is required, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

Environmental exposure controls

See Section 7: Handling and storage and Section 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Gas
Color	Colorless
Odor	Odorless
Odor Threshold	Odorless
pH	Not applicable
Melting point/range	-137 °C Estimated.

Freezing point	Not applicable
Boiling point (760 mmHg)	-54 °C <i>EC Method A2</i>
Flash point	Not applicable
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	Not flammable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor Pressure	16,000 hPa at 20 °C
Relative Vapor Density (air = 1)	3.5 at 20 °C
Relative Density (water = 1)	1.35
Water solubility	1.04 g/L 20°C, Unbuffered
Partition coefficient: n- octanol/water	log Pow: 0.41 Estimated
Auto-ignition temperature	Not applicable
Decomposition temperature	No test data available
Kinematic Viscosity	Not applicable
Explosive properties	No
Oxidizing properties	No

9.2 Other information

Molecular weight 102.0606

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

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity: No dangerous reaction known under conditions of normal use.

10.2 Chemical stability: Thermally stable at recommended temperatures and pressures.

10.3 Possibility of hazardous reactions: Polymerization will not occur.

10.4 Conditions to avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

10.5 Incompatible materials: Avoid contact with: Strong bases.

10.6 Hazardous decomposition products: Decomposition products can include and are not limited to: Hydrogen fluoride. Sulfur oxides. Toxic gases are released during decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity: No data available

Acute dermal toxicity: No data available

Acute inhalation toxicity: Rat, 4 Hour, gas, LC50 = 991 - 1122 ppm
Mouse, 4 Hour, gas, LC50 = 400 - 600 ppm

Vapor concentrations are attainable which may be fatal with single exposure.
For narcotic effects: Relevant data not available.

Skin corrosion/irritation

Gas: Not classified
Liquid may cause frostbite upon skin contact.

Serious eye damage/eye irritation

Gas: Not classified
Liquid: May cause frostbite upon eye contact.

Sensitization

Skin sensitization: No data available
Respiratory sensitization: No data available

Specific Target Organ Systemic Toxicity (Single Exposure)

Causes damage to organs.
Route of Exposure: Inhalation
Target Organs: Kidney

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Mouse, sub acute (14-day) inhalation study (6 h/day, 5 day/week) NOEL = 30 ppm
Affected Organs: Brain

Mouse, sub chronic (13 weeks) inhalation study (6 h/day, 5 day/week) NOEL = 30 ppm
Affected Organs: Thyroid, brain

Rat, sub acute (14-day) inhalation study (6 h/day, 5 day/week) NOEL = 100 ppm
Affected Organs: Kidney, lungs

Rat, sub chronic (13 weeks) inhalation study (6 h/day, 5 day/week) NOEL = 30 ppm

Affected Organs: Kidney, respiratory tract, brain, central nervous system,

Rat chronic (2 years) inhalation study (6 h/day, 5 day/week) NOAEL = 20 ppm

Affected Organs: Kidney, respiratory tract, brain, central nervous system, parathyroid, teeth

Rabbit, sub acute (14-day) inhalation study (6 h/day, 5 day/week) NOEL = 100 ppm
Affected Organs: Kidney, lungs, central nervous system

Rabbit, sub chronic (13 weeks) inhalation study (6 h/day, 5 day/week) NOEL = 30 ppm
Affected Organs: Kidney, respiratory tract, brain, central nervous system,

Dog, sub acute (14-day) inhalation study (6 h/day, 5 day/week) NOEL = 100 ppm
Affected Organs: Brain

Dog, sub chronic (13 weeks) inhalation study (6 h/day, 5 day/week) NOEL = 100 ppm
Affected Organs: Brain

Dog, chronic (1 year) inhalation study (6 h/day, 5 day/week) NOAEL = 20 ppm

Affected Organs: Kidney, respiratory tract, brain, central nervous system, thyroid,

Other observations in animals include: Convulsions. Tremors. May cause fluorosis of teeth and bones.

Carcinogenicity

Did not cause cancer in laboratory animals.

Teratogenicity

Rat, teratology study, inhalation (6 h/day, days 6-15 of gestation) NOEL = 225 ppm

There was no evidence of embryotoxicity, fetotoxicity or teratology noted up to the maximum dose tested

Rabbit, teratology study, inhalation (6 h/day, days 6-18 of gestation) NOEL = 225 ppm

There was no evidence of embryotoxicity, fetotoxicity or teratology noted up to the maximum dose tested

Reproductive toxicity

Rat, 2 generation study, inhalation (6 h/day, 5 days/week, 10 weeks F0, 12 weeks F1 (7 days/week during

mating, gestation and lactation).
NOEL, neonatal growth = 20 ppm,
NOEL reproductive toxicity = 150 ppm,
NOEL fertility = 150 ppm

Mutagenicity

Bacterial mutagenicity (Ames test) (TA98, TA100, TA1535, TA1537), non mutagenic (30,000 ppm)
Unscheduled DNA Synthesis (UDS), rat hepatocyte, negative response (204 to 1020 ppm)
Micronucleus test (mouse, bone marrow) no significant increases in the frequencies of micronucleated polychromic erythrocytes (negative result) (520 ppm)

Aspiration Hazard

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

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity to fish

LC50, *Danio rerio* (zebra fish), static test, 96 Hour, 0.89 mg/l

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, 0.62 mg/l

Acute toxicity to algae/aquatic plants

EbC50, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, Biomass, 0.58 mg/l

ErC50, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, Growth rate inhibition, 1.13 mg/l

Toxicity to Above Ground Organisms

LC50, *Apis mellifera* (bees), 2 Hour, mortality, 6.5mg/l

LC50, *Colinus virginianus* (Bobwhite quail), 4 Hour, 1,844 ppm

12.2 Persistence and degradability

Biodegradability: Not applicable

Abiotic degradation: Chemical degradation (hydrolysis) is expected in the environment.

12.3 Bioaccumulative potential

Bioaccumulation: Bioconcentration potential is considered to be low based on the estimated partition coefficient (n-octanol/water(log Pow): 0.41).

12.4 Mobility in soil

Potential for mobility in soil is considered to be very high (Koc between 0 and 50).

Partition coefficient(Koc): 6 Estimated.

12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods**CYLINDER AND PRODUCT DISPOSAL**

When the cylinder is empty, close valve, screw safety nut onto valve outlet, and replace protection cap before returning to supplier. Only Douglas Products is authorised to refill cylinders. Do not use cylinder for any other purpose. Follow Douglas Products' instructions for return of empty or partially empty cylinders.

Promptly return all empty cylinders and/or unused fumigant to the supplier of ProFume. Follow proper cylinder handling directions as described above.

Waste containing the substance should not be disposed of by release to sewers.

SECTION 14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport (ADR/RID):

14.1 UN number	UN 2191
14.2 Proper shipping name	SULPHURYL FLUORIDE
14.3 Class	2
14.4 Packing group	Not applicable
14.5 Environmental hazards	Sulfuryl fluoride is classified as Aquatic Acute 1; H400
14.6 Special precautions for user	Hazard identification No: 26

Classification for SEA transport (IMO-IMDG):

14.1 UN number	UN 2191
14.2 Proper shipping name	SULPHURYL FLUORIDE
14.3 Class	2.3
14.4 Packing group	Not applicable
14.5 Environmental hazards	MARINE POLLUTANT
14.6 Special precautions for user	EmS: F-C, S-U
14.7 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):

14.1 UN number	Not applicable
14.2 Proper shipping name	Transport forbidden by regulation
14.3 Class	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	No data available.

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.

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**Biocidal Products Regulation (Regulation (EU) No 528/2012):**

Authorisation No.: IE/BPA 70001, UK-2012-0004

Plant Protection Product Regulation (Regulation (EC) No 1072/2009):

UK Mapp No.17309, IE PCS No. 05592

Seveso III - Directive 2012/18/EU and its amendments:

Health Hazard: H2 and H3

Lower-tier requirement: 50 t

Upper-tier requirement: 200 t

Seveso III - Directive 2012/18/EU and its amendments:

Environmental Hazard: E1

Lower-tier requirement: 100 t

Upper-tier requirement: 200 t

Other regulations

Not applicable.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment for this substance has not been carried out by the supplier.

SECTION 16. OTHER INFORMATION

Full text of H-Statements referred to under Sections 2 and 3.

H280	Contains gas under pressure; may explode if heated.
H330	Fatal if inhaled.
H370	Causes damage to organs if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H400	Very toxic to aquatic life.

Revision

Issue Date: 03 December 2020 / Version: 5.0

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
BEI	Biological Exposure Indices
GB EH40	UK. EH40 WEL - Workplace Exposure Limits
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average

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.

DOUGLAS PRODUCTS urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this 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 SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.