Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name

Twin Jet Part 2

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

Relevant identified use(s)

One component of a two-component polyurethane system

1.3 Details of the supplier of the safety data sheet

Manufacturer

Firestone Building Products Company

200 4th Ave. South Nashville, TN 37201 United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP

Compressed Gas - H280
 Compressed Gas - H280
 Compressed Gas - H280

Specific Target Organ Toxicity Repeated Exposure 2 - H373

2.2 Label Elements

CLP

WARNING





Hazard statements • H280 - Contains gas under pressure; may explode if heated

Precautionary statements

Prevention • P260 - Do not breathe mist, vapours and/or spray.

Response • P314 - Get medical advice/attention if you feel unwell.

Storage/Disposal • P410+P403 - Protect from sunlight. Store in a well-ventilated place.

P501 - Dispose of content and/or container in accordance with local, regional,

national, and/or international regulations.

2.3 Other Hazards

CLP

 This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces.

According to Regulation (EC) No. 1272/2008 (CLP) this material is considered

hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

 Compressed Gas Eye Mild Irritation 2B

Specific Target Organ Toxicity Repeated Exposure 2

Simple Asphyxiant

2.2 Label elements

OSHA HCS 2012

WARNING





Hazard statements •

Contains gas under pressure; may explode if heated

Causes eye irritation

May cause damage to organs - kidneys and/or gastrointestinal system through

prolonged or repeated exposure

May displace oxygen and cause rapid suffocation.

Precautionary statements

Prevention • Wash thoroughly after handling.

Do not breathe mist, vapours and/or spray.

Response • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell.

Storage/Disposal • Protect from sunlight. Store in a well-ventilated place.

Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

2.3 Other hazards

• Under United States Regulations (29 CFR 1910.1200 - Hazard Communication

Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015Compressed Gas

Eve Mild Irritation 2B

Specific Target Organ Toxicity Repeated Exposure 2

Simple Asphyxiants 1

2.2 Label elements

WHMIS 2015

WARNING





Hazard statements • Contains gas under pressure; may explode if heated

Causes eye irritation

May cause damage to organs - kidneys and/or gastrointestinal system through

prolonged or repeated exposure

May displace oxygen and cause rapid suffocation.

Precautionary statements

Prevention • Wash thoroughly after handling.

Do not breathe mist, vapours and/or spray.

Response • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Storage/Disposal • Protect from sunlight. Store in a well-ventilated place.

Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

2.3 Other hazards

WHMIS 2015

 In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

• Material does not meet the criteria of a substance.

3.2 Mixtures

Composition						
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments	
1,1,1,2- Tetrafluoroethane	CAS:811-97-2 EC Number:212- 377-0	10% TO 15%	Inhalation-Rat LC50 • 1500 g/m³ 4 Hour(s)	EU CLP: Press. Gas, H280 OSHA HCS 2012: Press. Gas; Simp. Asphyx. WHMIS 2015: Press. Gas; Simp. Asphyx.	NDA	
Dipropylene Glycol	CAS:25265-71-8 EINECS:246-770-3	< 15%	Ingestion/Oral-Rat LD50 • 14850 mg/kg Skin-Rabbit LD50 • >20 mL/kg	EU CLP: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA	
Diethylene Glycol	CAS:111-46-6 EC Number:203- 872-2 EU Index:603-140 -00-6	< 15%	Skin-Rabbit LD50 • 11890 mg/kg Ingestion/Oral-Rat LD50 • 12000 mg/kg	EU CLP: Annex VI, Table 3.1: Acute Tox. 4, H302 OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2	NDA	

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Get medical attention immediately.

Skin

Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eve

In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

• Do NOT induce vomiting. If the subject is conscious, wash mouth and give 2 or more cups of milk or water. Never give anything by mouth to an unconscious person. Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

 All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Carbon dioxide, dry chemical, dry sand, foam, water spray.

Unsuitable Extinguishing

Do not use water jet.

Media

Products

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion

Hazards

Hazardous Combustion

Containers may explode when heated. Ruptured cylinders may rocket.

No data available

5.3 Advice for firefighters

Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Always wear thermal protective clothing when handling refrigerated/cryogenic liquids. Wear positive pressure self-contained breathing apparatus (SCBA).

Move containers from fire area if you can do it without risk.

FIRE: If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

FIRE INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

FIRE INVOLVING TANKS: Cool containers with flooding quantities of water until well after fire is out.

FIRE INVOLVING TANKS: Do not direct water at source of leak or safety devices; icing may occur.

FIRE INVOLVING TANKS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

FIRE INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

Ventilate the area before entry. Do not walk through spilled material. Use appropriate

Personal Protective Equipment (PPE) Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

 Keep unauthorized personnel away. Keep out of low areas. Stay upwind. LARGE SPILL: Consider initial downwind evacuation for at least 500 meters (1/3 mile) As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

Stop leak if you can do it without risk.
 Allow substance to evaporate.
 Isolate area until gas has dispersed.

If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.

Do not direct water at spill or source of leak.

6.4 Reference to other sections

 Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

• Use only with adequate ventilation. Use good safety and industrial hygiene practices. When handling the product, avoid contact with eyes, skin, and clothing, using protective equipment as needed. Do not breathe mist, vapours and/or spray. Do not use this product around children, and secure it away from children. To prevent ingestion or contact following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing and protective equipment before entering eating/drinking areas. Containers should be kept tightly closed to prevent contact with moisture and other chemicals. Do not reuse empty containers for any purpose.

7.2 Conditions for safe storage, including any incompatibilities

Storage

 Keep containers tightly sealed during storage. Store in a dry, well-ventilated area away from sources of ignition and incompatible materials (see Section #10). Protect from heat and direct sunlight. Recommended temperature for storage is 55-85°F. (12.8-29.4°C.).

7.3 Specific end use(s)

Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines					
	Result	Denmark	Germany DFG	Germany TRGS	
1,1,1,2- Tetrafluoroethane (811-97-2)	TWAs	Not established	Not established	1000 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 8); 4200 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 8)	

	Ceilings	Not established	8000 ppm Peak; 33600 mg/m3 Peak	Not established
	MAKs	Not established	1000 ppm TWA MAK; 4200 mg/m3 TWA MAK	Not established
Diethylene Glycol (111-46-6)	TWAs	2.5 ppm TWA; 11 mg/m3 TWA	Not established	10 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed; sum of vapor and aerosol, exposure factor 4); 44 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed; sum of vapor and aerosol, exposure factor 4)
	Ceilings	Not established	40 ppm Peak (can occur as vapor and aerosol at the same time); 176 mg/m3 Peak (can occur as vapor and aerosol at the same time)	Not established
	MAKs	Not established	10 ppm TWA MAK (can occur as vapor and aerosol at the same time); 44 mg/m3 TWA MAK (can occur as vapor and aerosol at the same time)	Not established
Dipropylene Glycol (25265-71-8)	TWAs	Not established	Not established	100 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed; sum of vapor and aerosol, inhalable fraction, exposure factor 2)
	Ceilings	Not established	200 mg/m3 Peak (can occur as vapor and aerosol at the same time, inhalable fraction)	Not established
	MAKs	Not established	100 mg/m3 TWA MAK (can occur as vapor and aerosol at the same time, inhalable fraction)	Not established

Exposure Control Notations

Germany DFG

- •Diethylene Glycol (111-46-6): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)
- •Dipropylene Glycol (25265-71-8): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)
- •1,1,1,2-Tetrafluoroethane (811-97-2): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

8.2 Exposure controls

Engineering Measures/Controls

 Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

• In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

Wear safety glasses.

Skin/Body

· Wear appropriate gloves.

Environmental Exposure Controls

Controls should be engineered to prevent release to the environment, including
procedures to prevent spills, atmospheric release and release to waterways. Follow
best practice for site management and disposal of waste.

Key to abbreviations

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Aerosol	Appearance/Description	Red viscous liquid with mildly sweet odor.
Color	Red	Odor	Mildly sweet.
Odor Threshold	Data lacking		
General Properties		-	•
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	рН	Data lacking
Specific Gravity/Relative Density	= 1.03 Water=1	Water Solubility	Partially Soluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility		-	•
Vapor Pressure	> 200 psi	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Wt.)	Data lacking
VOC (Vol.)	Data lacking		
Flammability		-	•
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental	•	•	•
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

 No dangerous reaction known under conditions of normal use. Polymerizes with isocyanate-containing substnaces.

10.2 Chemical stability

• Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

Hazardous polymerization not indicated.

10.4 Conditions to avoid

Excess heat. Incompatible materials.

10.5 Incompatible materials

· Oxidizing agents.

10.6 Hazardous decomposition products

• Carbon monoxide, carbon dioxide, smoke, and irritant decomposition byproducts.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components				
Diethylene Glycol (< 15%)	111-46-6	Acute Toxicity: Skin-Rabbit LD50 • 11890 mg/kg; Irritation: Eye-Rabbit • 50 mg • Mild irritation; Skin-Rabbit • 500 mg • Mild irritation		
Dipropylene Glycol (< 15%)	25265-71-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • 14850 mg/kg; Skin-Rabbit LD50 • >20 mL/kg		
1,1,1,2-Tetrafluoroethane (10% TO 15%)	811-97-2	Acute Toxicity: Inhalation-Rat LC50 • 1500 g/m³ 4 Hour(s)		

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Eye Mild Irritation 2B WHMIS 2015 • Eye Mild Irritation 2B
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2 WHMIS 2015 • Specific Target Organ Toxicity Repeated Exposure 2

Potential Health Effects

Inhalation

Acute (Immediate)

• This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. If this material is released in a small, poorly ventilated area (i.e. an enclosed or confined space), an oxygen-deficient environment may occur. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. Under some circumstances of over-exposure, death may occur. The following effects associated with decreased levels of oxygen: increase in breathing and pulse rate, emotional upset, abnormal fatigue, nausea, vomiting, collapse, loss of consciousness, convulsive movements, respiratory collapse and death.

Chronic (Delayed)

No data available

Skin

Acute (Immediate)No data availableNo data available

Eye

Acute (Immediate) • Causes eye irritation.
Chronic (Delayed) • No data available

Ingestion

Acute (Immediate)
 The product is nontoxic by ingestion, but ingestion may cause nausea, vomiting, and/or gastrointestinal irritation.

Chronic (Delayed)

No data available

Other

Chronic (Delayed)

 May cause damage to kidneys and/or gastrointestinal system through prolonged or repeated exposure.

Key to abbreviations

LC = Lethal Concentration LD = Lethal Dose

12.1 Toxicity

Material data lacking.

12.2 Persistence and degradability

Section 12 - Ecological Information

· Material data lacking.

12.3 Bioaccumulative potential

Material data lacking.

12.4 Mobility in Soil

Material data lacking.

12.5 Results of PBT and vPvB assessment

No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN3500	CHEMICAL UNDER PRESSURE, N.O.S. (contains fluorinated hydrocarbon, nitrogen)	2.2	Not relevant	NDA
TDG	UN3500	CHEMICAL UNDER PRESSURE, N.O.S. (contains fluorinated hydrocarbon, nitrogen)	2.2	Not relevant	NDA
IMO/IMDG	UN3500	CHEMICAL UNDER PRESSURE, N.O.S. (contains fluorinated hydrocarbon, nitrogen)	2.2	Not relevant	NDA
ADN	UN3500	CHEMICAL UNDER PRESSURE, N.O.S. (contains fluorinated hydrocarbon, nitrogen)	2.2	Not relevant	NDA
ADR/RID	UN3500	CHEMICAL UNDER PRESSURE, N.O.S. (contains fluorinated hydrocarbon, nitrogen)	2.2	Not relevant	NDA
IATA/ICAO	UN3500	CHEMICAL UNDER PRESSURE, N.O.S. (contains fluorinated hydrocarbon, nitrogen)	2.2	Not relevant	NDA

14.6 Special precautions for • None specified. user

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Pressure(Sudden Release of), Acute, Chronic

State Right To Know					
Component	CAS	MA	NJ	PA	
Diethylene Glycol	111-46-6	No	No	Yes	
1,1,1,2- Tetrafluoroethane	811-97-2	No	No	No	
Dipropylene Glycol	25265-71-8	No	No	Yes	

			Inventory			
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Diethylene Glycol	111-46-6	Yes	No	Yes	No	Yes

1,1,1,2- Tetrafluoroethane	1-97-2 Yes	No	Yes	No	Yes
Dipropylene Glycol 252	265-71-8 Yes	No	Yes	No	Yes

Belgium

111-46-6	Not Listed
811-97-2	Not Listed
25265-71-8	Not Listed
	811-97-2

Bulgaria

Environment		1						
Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour								
Diethylene Glycol	111-46-6	Not Listed						
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed						
Dipropylene Glycol	25265-71-8	Not Listed						
Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minu	Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute							
Diethylene Glycol	111-46-6	Not Listed						
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed						
Dipropylene Glycol	25265-71-8	Not Listed						
Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual								
Diethylene Glycol	111-46-6	Not Listed						
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed						
Dipropylene Glycol	25265-71-8	Not Listed						

Canada

_abor Canada - WHMIS 1988 - Classifications of Substances		
Diethylene Glycol	111-46-6	D1B
• 1,1,1,2-Tetrafluoroethane	811-97-2	A
Dipropylene Glycol	25265-71-8	Not Listed
Canada - WHMIS 1988 - Ingredient Disclosure List		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed

Environment Canada - CEPA - Priority Substances List		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed

Denmark

Environment Denmark - List of Undesirable Substances - Product Groups/Function		
Diethylene Glycol	111-46-6	Not Listed
		Spray canisters (listed under
		Fluorinated greenhouse
		gases); Refrigeration systems

• 1,1,1	,2-Tetrafluoroethane	811-97-2	(listed under Fluorinated greenhouse gases); Insulating foam (listed under Fluorinated greenhouse gases)
• Dipro	pylene Glycol	25265-71-8	Not Listed

Europe

Other		
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification (OBSOLETE) • Diethylene Glycol	111-46-6	Xn; R22
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
	25265-71-8	Not Listed
Dipropylene Glycol	23203-7 1-0	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits (OBSOLETE)		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
FIL OLD (4070/0000) Annex M. Table 0.0 Labelling (ODOOLETE)		
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling (OBSOLETE)	111 16 6	Va D.22 C./2) 46
Diethylene Glycol	111-46-6	Xn R:22 S:(2)-46
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations (OBSOLETE)	
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases (OBSOLETE)		
Diethylene Glycol	111-46-6	S:(2)-46
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed

Germany

Labor Germany - Immission Control - Qualifying Quantities for Ma	ior Accident Prevention	
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
Germany - Immission Control - Qualifying Quantities for Saf	ety Reporting	
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
Germany - TRGS 505 - Specific Lead Regulations		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed

Environment

Environment		
Germany - TA Luft - Types and Classes		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed

 Dipropylene Glycol Germany - TA Luft - Emission Limits for Carcinogenic Substances Diethylene Glycol 111-46-6 Not Listed 1,1,1,2-Tetrafluoroethane Dipropylene Glycol Diethylene Glycol Diethylene Glycol Diethylene Glycol Diethylene Glycol Diethylene Glycol 111-46-6 Not Listed Not Listed 1,1,1,2-Tetrafluoroethane Dipropylene Glycol Diethylene Glycol Not Listed Not Listed Not Listed Not Listed Not Listed Pipropylene Glycol Dipropylene Glycol Not Listed Not Listed Not Listed Dipropylene Glycol Dipropylene Glycol Dipropylene Glycol Not Listed Not Listed Dipropylene Glycol Dipropylene Glycol Dipropylene Glycol
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 1,1,1,2-Tetrafluoroethane Dipropylene Glycol Germany - TA Luft - Emission Limits for Fibers Diethylene Glycol 111-46-6 Not Listed 1,1,1,2-Tetrafluoroethane Dipropylene Glycol Dipropylene Glycol Dipropylene Glycol Diethylene Glycol Diethylene Glycol Diethylene Glycol Diethylene Glycol Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed 111-46-6 Not Listed 111-46-6 Not Listed 111-47-2 Not Listed Not Listed 111-47-2 Not Listed Not Listed
 Dipropylene Glycol Germany - TA Luft - Emission Limits for Fibers Diethylene Glycol 1,1,1,2-Tetrafluoroethane Dipropylene Glycol Dipropylene Glycol Germany - TA Luft - Emission Limits for Inorganic Dusts Diethylene Glycol Diethylene Glycol 111-46-6 Not Listed Not Listed 111-46-6 Not Listed 111-46-6 Not Listed 111-47-2 Not Listed 111-47-2 Not Listed
Germany - TA Luft - Emission Limits for Fibers • Diethylene Glycol 111-46-6 Not Listed • 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed • Dipropylene Glycol 25265-71-8 Not Listed Germany - TA Luft - Emission Limits for Inorganic Dusts • Diethylene Glycol 111-46-6 Not Listed • 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed
 Diethylene Glycol 1,1,1,2-Tetrafluoroethane Dipropylene Glycol Bil-97-2 Not Listed Dipropylene Glycol Cermany - TA Luft - Emission Limits for Inorganic Dusts Diethylene Glycol 111-46-6 Not Listed 1,1,1,2-Tetrafluoroethane Not Listed Not Listed Not Listed
 1,1,1,2-Tetrafluoroethane Dipropylene Glycol Germany - TA Luft - Emission Limits for Inorganic Dusts Diethylene Glycol 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed Not Listed 811-97-2 Not Listed Not Listed
 Dipropylene Glycol Germany - TA Luft - Emission Limits for Inorganic Dusts Diethylene Glycol 1,1,1,2-Tetrafluoroethane 25265-71-8 Not Listed Not Listed 811-97-2 Not Listed
Germany - TA Luft - Emission Limits for Inorganic Dusts • Diethylene Glycol 111-46-6 Not Listed • 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed
 Diethylene Glycol 1,1,1,2-Tetrafluoroethane Not Listed Not Listed Not Listed
 Diethylene Glycol 1,1,1,2-Tetrafluoroethane Not Listed Not Listed Not Listed
• Dipropulana Chron
- Dipropyrene Grycon 20200-7 1-0 Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases
• Diethylene Glycol 111-46-6 Not Listed
• 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed
• Dipropylene Glycol 25265-71-8 Not Listed
Germany - TA Luft - Emission Limits for Organic Substances
• Diethylene Glycol 111-46-6 Not Listed
• 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed
Dipropylene Glycol 25265-71-8 Not Listed
Germany - Water Classification (VwVwS) - Annex 1
Diethylene Glycol 111-46-6 Not Listed
• 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed
Dipropylene Glycol 25265-71-8 Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes
• Diethylene Glycol 111_46-6 ID Number 79, hazard class 1
- low nazard to waters
• 1,1,1,2-Tetrafluoroethane 811-97-2 Not Listed
Dipropylene Glycol 25265-71-8 Not Listed
Germany - Water Classification (VwVwS) - Annex 3
• Diethylene Glycol 111-46-6 Not Listed
• 1,1,1,2-Tetrafluoroethane 811-97-2 ID Number 2350, hazard class
1 - low hazard to waters
• Dipropylene Glycol 25265-71-8 ID Number 3419, hazard class 1 - low hazard to waters
1 - IOW Hazard to waters

United States

Labor			
U.S OSHA - Process Safety Management - Highly Hazardous Chemical	s		
Diethylene Glycol	111-46-6	Not Listed	
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed	
Dipropylene Glycol	25265-71-8	Not Listed	
U.S OSHA - Specifically Regulated Chemicals			
Diethylene Glycol	111-46-6	Not Listed	
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed	
Dipropylene Glycol	25265-71-8	Not Listed	

Environment U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S CERCLA/SARA - Section 313 - Emission Reporting		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S CERCLA/SARA - Section 313 - PBT Chemical Listing		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed

United States - California

Environment U.S California - Proposition 65 - Carcinogens List		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S California - Proposition 65 - Developmental Toxicity		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed

Diethylene Glycol	111-46-6	Not Listed	
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed	
Dipropylene Glycol	25265-71-8	Not Listed	
U.S California - Proposition 65 - Reproductive Toxicity - Female			
Diethylene Glycol	111-46-6	Not Listed	
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed	
Dipropylene Glycol	25265-71-8	Not Listed	
U.S California - Proposition 65 - Reproductive Toxicity - Male			
Diethylene Glycol	111-46-6	Not Listed	
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed	
Dipropylene Glycol	25265-71-8	Not Listed	

United States - Pennsylvania

Labor		
U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed
U.S Pennsylvania - RTK (Right to Know) - Special Hazardous Substances		
Diethylene Glycol	111-46-6	Not Listed
• 1,1,1,2-Tetrafluoroethane	811-97-2	Not Listed
Dipropylene Glycol	25265-71-8	Not Listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

H302 - Harmful if swallowed

Revision Date

08/January/2018

Preparation Date

14/December/2017

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Key to abbreviations NDA = No Data Available