

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

7/21/2018

1.1 Product identifier

Product Name • NORBOND Adhesion Promoter™ 4357
Product Code • SDS# 1022

CRL Catalog Numbers • 2287PT, 2287GL

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

Relevant identified use(s) • Adhesion Promoter

1.3 Details of the supplier of the safety data sheet

Manufacturer • Saint-Gobain Performance Plastics
One Sealants Park
Granville, NY 12832
United States
www.foams.saint-gobain.com

Telephone (General) • 518-642-2200

1.4 Emergency telephone number

Manufacturer • CHEMTREC 800-424-9300

Key to abbreviations

‡ = HMIS is a registered trademark of the American Coatings Association

Section 2: Hazards Identification

EU/EEC

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Flammable Liquids 2 - H225
Eye Irritation 2 - H319
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
EUH066

DSD/DPD • Highly Flammable (F)
Irritant (Xi)
R11, R36, R66, R67

2.2 Label Elements

CLP

DANGER

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012
- Flammable Liquids 2 - H225
 - Eye Irritation 2 - H319
 - Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
 - Reproductive Toxicity 2 - H361
 - Specific Target Organ Toxicity Repeated Exposure 2 - H373

2.2 Label elements

OSHA HCS 2012

DANGER

- Hazard statements**
- Highly flammable liquid and vapour - H225
 - Causes serious eye irritation - H319
 - May cause drowsiness or dizziness - H336
 - Suspected of damaging fertility or the unborn child. - H361
 - May cause damage to organs - brain and central nervous system through prolonged or repeated exposure - H373

Precautionary statements

- Prevention**
- Obtain special instructions before use. - P201
 - Do not handle until all safety precautions have been read and understood. - P202
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
 - Keep container tightly closed. - P233
 - Ground and/or bond container and receiving equipment. - P240
 - Use explosion-proof electrical/ventilating/lighting/equipment. - P241
 - Use only non-sparking tools. - P242
 - Take precautionary measures against static discharge. - P243
 - Do not breathe mist/vapours/spray. - P260
 - Wash thoroughly after handling. - P264
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
 - Use personal protective equipment as required. - P281
- Response**
- In case of fire: Use appropriate media for extinction. - P370+P378
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - Call a POISON CENTER or doctor/physician if you feel unwell. - P312
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 - If eye irritation persists: Get medical advice/attention. - P337+P313
 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. - P309+P311
 - Get medical advice/attention if you feel unwell. - P314
- Storage/Disposal**
- Keep cool. - P235
 - Store in a well-ventilated place. Keep container tightly closed. - P403+P233

			Skin-Rabbit LD50 • 14100 µL/kg	Irrit. 2, H315; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; Acute Tox. 4 (Oral); STOT SE 3: Narc.; Asp. Tox 1; STOT RE 2 (CNS and Brain);	
Acrylic Polymer	NDA	1% TO 5%	NDA	EU DSD/DPD: Data Lacking EU CLP: Data Lacking OSHA HCS 2012: Data Lacking	NDA
Isopropyl alcohol	CAS: 67-63-0 EC Number: 200-661-7	0.1% TO 1%	Inhalation-Rat LC50 • 16000 ppm 8 Hour(s) Skin-Rabbit LD50 • 12800 mg/kg Ingestion/Oral-Rat LD50 • 5000 mg/kg	EU DSD/DPD: Annex I: F; R11 Xi; R36 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3: Narc, H336 OSHA HCS 2012: Eye Irrit. 2, Flam. Liq. 2, STOT SE 3: Narc.	NDA

See Section 11 for Toxicological Information. See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation** • Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Move victim to fresh air.
- Skin** • In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. Wash skin with soap and water.
- Eye** • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion** • First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If large quantities are swallowed, call a physician immediately.

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** • SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.
LARGE FIRES: Water spray, fog or alcohol-resistant foam.
- Unsuitable Extinguishing Media** • Water may be ineffective on flames, but may be used to keep fire exposed vessels cool.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards** • HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Storage • Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep away from fire.

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	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
Isopropyl alcohol (67-63-0)	STELs	400 ppm STEL	400 ppm STEL	400 ppm STEL	500 ppm STEL; 1230 mg/m3 STEL	500 ppm STEL; 1228 mg/m3 STEL
	TWAs	200 ppm TWA	200 ppm TWA	200 ppm TWA	400 ppm TWA; 983 mg/m3 TWA	400 ppm TWA; 983 mg/m3 TWA
Toluene (108-88-3)	TWAs	20 ppm TWA	20 ppm TWA	20 ppm TWA	50 ppm TWA; 188 mg/m3 TWA	100 ppm TWA; 375 mg/m3 TWA
	STELs	Not established	Not established	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL
Acetone (67-64-1)	STELs	750 ppm STEL	500 ppm STEL	750 ppm STEL	750 ppm STEL; 1782 mg/m3 STEL	1250 ppm STEL; 2970 mg/m3 STEL
	TWAs	500 ppm TWA	250 ppm TWA	500 ppm TWA	500 ppm TWA; 1188 mg/m3 TWA	1000 ppm TWA; 2370 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Yukon
Isopropyl alcohol (67-63-0)	STELs	400 ppm STEL	500 ppm STEL; 1228 mg/m3 STEL	400 ppm STEL	500 ppm STEV; 1230 mg/m3 STEV	500 ppm STEL; 1225 mg/m3 STEL
	TWAs	200 ppm TWA	400 ppm TWA; 983 mg/m3 TWA	200 ppm TWA	400 ppm TWAEV; 985 mg/m3 TWAEV	400 ppm TWA; 980 mg/m3 TWA
Toluene (108-88-3)	TWAs	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	100 ppm TWA; 375 mg/m3 TWA
	STELs	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL
Acetone (67-64-1)	STELs	750 ppm STEL	1250 ppm STEL; 2970 mg/m3 STEL	750 ppm STEL	1000 ppm STEV; 2380 mg/m3 STEV	1250 ppm STEL; 3000 mg/m3 STEL
	TWAs	500 ppm TWA	1000 ppm TWA; 2370 mg/m3 TWA	500 ppm TWA	500 ppm TWAEV; 1190 mg/m3 TWAEV	1000 ppm TWA; 2400 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Europe	NIOSH	OSHA		
Isopropyl alcohol (67-63-0)	TWAs	Not established	400 ppm TWA; 980 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA		
	STELs	Not established	500 ppm STEL; 1225 mg/m3 STEL	Not established		
Toluene (108-88-3)	STELs	100 ppm STEL; 384 mg/m3 STEL	150 ppm STEL; 560 mg/m3 STEL	Not established		
	TWAs	50 ppm TWA; 192 mg/m3 TWA	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA		
	Ceilings	Not established	Not established	300 ppm Ceiling		
Acetone (67-64-1)	TWAs	Not established	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA		

8.2 Exposure controls

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Sparks, fire, heat.

10.5 Incompatible materials

- Strong oxidizing agents, strong alkalies.

10.6 Hazardous decomposition products

- CO and unidentified organic compounds.

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

Component Name	CAS	Data
Toluene (1% TO 5%)	108-88-3	Acute Toxicity: orl-rat LD50:636 mg/kg; ihl-rat LC50:49 gm/m3/4H; skn-rbt LD50:14100 uL/kg; Irritation: eye-rbt 100 mg/30S rinse MLD; skn-rbt 435 mg MLD; Reproductive: ihl-rat TCLo:1500 ppm (7-20D preg)
Isopropyl alcohol (0.1% TO 1%)	67-63-0	Acute Toxicity: orl-rat LD50:5045 mg/kg; ihl-rat LC50:16000 ppm/8H; skn-rbt LD50:12800 mg/kg; Irritation: eye-rbt 100 mg SEV; skn-rbt 500 mg MLD
Acetone (60% TO 100%)	67-64-1	Acute Toxicity: orl-rat LD50:5800 mg/kg; ihl-rat LC50:50100 mg/m3/8H; Irritation: eye-rbt 20 mg/24H MOD; skn-rbt 500 mg/24H MLD; Mutagen: sln-mus-ihl 12 gm/L; Reproductive: orl-rat TDLo:273 gm/kg (13W male); ihl-rat TCLo:11000 ppm (6-19D preg)
GHS Properties		Classification
Acute toxicity		EU/CLP•Classification criteria not met OSHA HCS 2012•Classification criteria not met
Aspiration Hazard		EU/CLP•Classification criteria not met OSHA HCS 2012•Classification criteria not met
Carcinogenicity		EU/CLP•Classification criteria not met OSHA HCS 2012•Classification criteria not met
Germ Cell Mutagenicity		EU/CLP•Classification criteria not met OSHA HCS 2012•Classification criteria not met
Skin corrosion/Irritation		EU/CLP•Classification criteria not met OSHA HCS 2012•Classification criteria not met
Skin sensitization		EU/CLP•Classification criteria not met OSHA HCS 2012•Classification criteria not met
STOT-RE		EU/CLP•Classification criteria not met OSHA HCS 2012•Specific Target Organ Toxicity Repeated Exposure 2
STOT-SE		EU/CLP•Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012•Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction		EU/CLP•Classification criteria not met

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	UN1133	Adhesives	3	II	NDA
TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user

- None known.

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

- Not relevant.

14.8 Other information

DOT • According to 49 CFR 172.101 Appendix A Acetone has a reportable quantity of 5000lbs (2270kg).

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications

- Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
Acrylic Polymer	NDA	No	No	No
Toluene	108-88-3	Yes	Yes	Yes
Proprietary	Proprietary	No	No	No
Proprietary	Proprietary	No	No	No
Isopropyl alcohol	67-63-0	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Acrylic Polymer	NDA	No	No	No	No	No
Toluene	108-88-3	Yes	No	Yes	No	Yes

•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

Canada Ontario

Environment

Canada - Ontario - Airborne Contaminant Reporting - Table 2A

•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

Canada - Ontario - Airborne Contaminant Reporting - Table 2B

•Acetone	67-64-1	3000 kg/yr MPO Threshold
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

Canada - Ontario - Ozone Depleting Substances and Other Halocarbons - Class 1 Substances

•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

Canada - Ontario - Ozone Depleting Substances and Other Halocarbons - Class 2 Substances

•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

Canada - Ontario - Ozone Depleting Substances and Other Halocarbons - Halocarbons

•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

Canada Yukon

Environment

Canada - Yukon - Ozone Depleting Substances and Other Halocarbons

•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

•Acetone	67-64-1	F; R11 Xi; R36 R66 R67
•Isopropyl alcohol	67-63-0	F; R11 Xi; R36 R67
•Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

•Acetone	67-64-1	Not Listed
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•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
•Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
•Toluene	108-88-3	1.0 % de minimis concentration
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	Not Listed
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CWA (Clean Water Act) - Hazardous Substances		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CWA (Clean Water Act) - Priority Pollutants		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	
•Proprietary	Proprietary	Not Listed
•Proprietary	Proprietary	Not Listed
U.S. - CWA (Clean Water Act) - Reportable Quantities of Designated Hazardous Substances		
•Acetone	67-64-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
•Toluene	108-88-3	1000 lb RQ

- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed
- U.S. - California - Proposition 65 - Developmental Toxicity**
- Acetone 67-64-1 Not Listed
- Isopropyl alcohol 67-63-0 Not Listed
- Toluene 108-88-3 developmental toxicity, initial date 1/1/91
- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed
- U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**
- Acetone 67-64-1 Not Listed
- Isopropyl alcohol 67-63-0 Not Listed
- Toluene 108-88-3 7000 µg/day MADL (level represents absorbed dose)
- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed
- U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**
- Acetone 67-64-1 Not Listed
- Isopropyl alcohol 67-63-0 Not Listed
- Toluene 108-88-3 Not Listed
- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed
- U.S. - California - Proposition 65 - Reproductive Toxicity - Female**
- Acetone 67-64-1 Not Listed
- Isopropyl alcohol 67-63-0 Not Listed
- Toluene 108-88-3 female reproductive toxicity, initial date 8/7/09
- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed
- U.S. - California - Proposition 65 - Reproductive Toxicity - Male**
- Acetone 67-64-1 Not Listed
- Isopropyl alcohol 67-63-0 Not Listed
- Toluene 108-88-3 Not Listed
- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed

United States - Pennsylvania

Labor

- U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**
- Acetone 67-64-1
- Isopropyl alcohol 67-63-0
- Toluene 108-88-3
- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed
- U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances**
- Acetone 67-64-1 Not Listed
- Isopropyl alcohol 67-63-0 Not Listed
- Toluene 108-88-3 Not Listed
- Proprietary* *Proprietary* Not Listed
- Proprietary* *Proprietary* Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16 - Other Information