Blocksil No Slip Floor Seal

Revolutionary Slip Resistant Coating

Highly Slip Resistant and Stain Resistant

Smooth finish and No aggregate is needed

Indoor and outdoor

Suitable for tile, stone, concrete, metal, wood, plastic, vinyl, epoxy and even wax surface

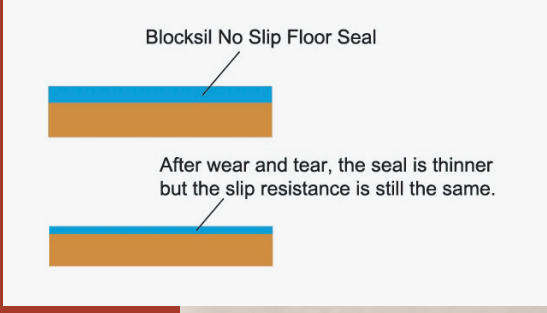
PRODUCT DESCRIPTION

Blocksil No Slip Floor Seal is a product of revolutionary breakthrough of nanotechnology and polymer chemistry. Thanks to its proprietary thermoplastic and esters polymer components, the cured coating exhibits not only highly slip resistant but stain resistant properties. It is transparent and can be applied indoor or outdoor on almost all substrates, such as ceramic tile, stone, concrete, wood, metal, vinyl, epoxy and even waxed surface. **Without the need of aggregate**, its smooth finish can achieve Coefficient of Friction under wet condition over 0.7.

For areas where higher slip resistance is required, such as ramp or step nose, Blocksil No Slip Floor Seal AA is recommended. Carborundum aggreggates can even be incorporated into the coating to replace anti- skid stripe.

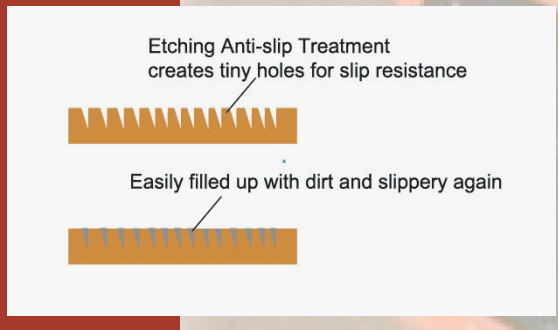
Comparison of Blocksil with other systems

Advantages of Blocksil No Slip Floor Seal:



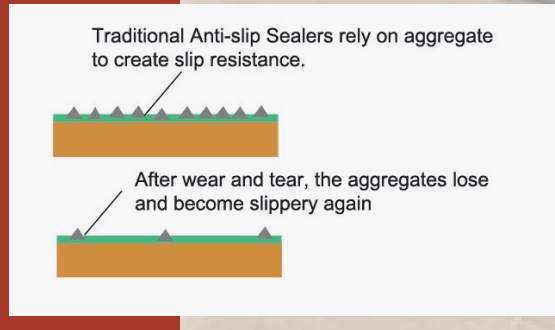
1. Slip resistance over 0.7 COF (ASTM C1028)
2. Improve stain resistance of non-slip tile.
3. The slip resistance performance is stable and remains the same until fully worn out.
4. Will not crack, peel, turn yellow or chip.
5. Can be easily stripped with proprietary remover.
6. Sanding or texturing is not required for recoating.
7. Different versions for different slip resistance requirements.

Disadvantages of Etching type Slip Resistant Treatment:



1. Slip resistant treatment creates texture by dissolving minerals in tile to create tiny holes. These holes will trap dirt very easily and become very dirty and difficult to maintain.
2. Unstable: when the holes are filled up with dirt, the slip resistance will disappear until proper cleaning.
3. The treated area will become dull and lose luster.
4. Only for ceramic, stone and concrete.

Disadvantages of Traditional Epoxy, PU or Acrylic Tile Sealers:



1. Traditional sealers require the addition of aggregates to create slip resistance. It will trap dirt easily.
2. When the aggregates are lost after wear and tear, the coating is even more slippery than uncoated area.
3. Stripping is not easy. The new coat normally is applied directly on the old coat. The coating will become thicker and thicker and very ugly.
4. Traditional Epoxy or PU require sanding the old surface before recoating for good adhesion.

THE BLOCK SEALER COMPANY

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Sole Agent:

BLOCKSIL

No Slip Floor Seal

Water Based Slip Resistant Floor Sealer

TECHNICAL DATA SHEET (2012/11)

DESCRIPTION AND USE:

BLOCKSIL NO SLIP FLOOR SEAL (NSFS) is a water based emulsion of modified thermoplastic resins and its esters. Without the need of additive, it has a very smooth but highly slip resistant finish, with static COF over 0.7 when wet according to ASTM C1028. It is transparent and can be applied indoor or outdoor on almost all substrates, such as ceramic tile, stone, concrete, wood, metal, vinyl, epoxy, previously sealed finishes and even waxed surface.

For areas where higher slip resistance is required, such as ramp or step nose, BLOCKSIL NO SLIP FLOOR SEAL AA (textured version) can be used. Carborundum aggregates can further be incorporated into the coating to replace anti-slip stripe.

ADVANTAGES:

- Highly slip resistant but smooth finish
- Prevent spawling/crumbing, discoloration, deterioration, rust and corrosion.
- Breathable: allow moisture to escape
- Does not yellow, peel, crack, flake, nor chip
- Resists damage from Salt Water
- Resists staining from water, oils, gasoline, acids, grease, dirt, salt water, food and beverage spills, alcohol, perfume and uric acid.
- New applications blend into old without seams.
- Buffable

TECHNICAL DATA

- Slip Resistance (ASTM C1028)
  Dry: COF=0.81 Wet: COF=0.75
- VOC Content: 105g/litre
- Dry time: 10-30 minutes
- Full Cure: 96 hours
- Solid Content:15%
- Specific Gravity:1.0
- Weight per litre 1kg
- Heat Resistance: 315 ^{0}C
- Flash Point Non-combustible
- Shell Life 10 years
- Repellency Rating: (ASTM C67): Excellent
- Pencil Hardness: (ASTM D 3363): 2H
- Tukon Hardness (ASTM D 1474): 14
- Flexibility: (ASTM D 1737): 1/8" mandrels: 3
- Gloss: 90 Gardner Scale

COVERAGE RATE:

10 sqm to 100 sqm/liter

THICKNESS

4.5 mil for 10 sqm/litre on non-porous substrate

APPLICATION METHOD

1. The applying surface shall be dry, clean and free from grease, dirt and loosen parts. Recommend to use Neutral Cleaner to clean the floor thoroughly and rinse with water. Porous materials should be allowed with sufficient time to dry out thoroughly after cleaning.
2. For ceramic tile, limestone, porcelain or brick, highly recommend to use our CLEAN & TREAT for thorough cleaning and enhancing proper adhesion with NSFS.
3. Depending on the texture and the material of the substrate, apply with sponge mop, airless spray or paint roller thinly and evenly
4. When the first coat is dry, further apply 3-6 coats to achieve desired thickness.

CURING TIME:

Touch dry	5-10 min
Initial Curing	8 hours (open to light traffic)
Fully Cured	96 hours

MAINTENANCE DIRECTIONS:

- Use a light dilution of a neutral cleaner for normal, daily cleaning. The use of anything but a neutral cleaner will dull or strip NSFS. If necessary, use a soft nylon brush, scrubbing machine, or a pressure washer on low setting.
- Cleaner residue allowed to dry on the NSFS will dull the high gloss in time.
- Reapply a new coat of NSFS over the dull or worn finish to restore the high gloss of the floor
- Buffing is possible with NSFS. (For detail, please refer to Method Statement)

BLOCKSIL LIMITED
Cathedral House, 5 Beacon Street, Lichfield
WS13 7AA UK
TEL: 015 43887840 FAX: 015 43421842

Method Statement of Blocksil No Slip Floor Seal (NSFS) (2013.10.11)

SUBSTRATE PREPARATION

Thoroughly clean the floor substrate with a NEUTRAL CLEANER (PH7) and then rinse with clean water. If there exists waxes/seals in poor condition, remove them first. Otherwise, NSFS can be applied directly over clean waxed or sealed surface. NSFS must be applied to completely dry surface. Porous materials like limestone, marble, terrazzo shall be allowed enough time to dry out completely

For Unsealed ceramic, porcelain, brick and limestone, we strongly recommend the use of our CLEAN & TREAT, which both cleans and uniquely insures proper adhesion of NSFS. Refer to the method statement and data sheet of CLEAN & TREAT for detail.

A good blower or fan can be used to speed up the drying time. Allow enough time for the moisture to evaporate from below the surface and throughout the substrate material.

After proper floor area preparation as stated above, NSFS can be applied.

APPLICATION OF NSFS

Use NSFS or NSFS AA full strength without any dilution.

(1) NSFS (WITHOUT ADDITIVE)

Porous/Rough floors

Use an airless sprayer with tip size of 0.015 or 0.013 at 300-500 PSI. Apply NSFS by slowly moving the spray tool over the floor area so that you can clearly see the wetness of NSFS as it is being applied. A heavier base coat can be applied which will entirely soak into the substrate. When the entire area has been sprayed with NSFS, allow it to dry to touch before applying the next coat, which should occur in about 15 -60 minutes, depending on the temperature and humidity. We recommend applying thinly in more coats, instead of applying thickly in fewer coats.

Smooth, non-porous floors

Use either a quality sponge mop, or a brand new pre-rinsed cotton mop. Do not use old mops. All mops/tools- must be pre-washed and dried before use. Placing the mop in a bucket of NSFS and cover it with a plastic bag while waiting for each coat to dry to avoid NSFS to harden on the mop.

Dip the tools into wet NSFS in a bucket or a tray. Insure the tool is not dripping before applying to the floor. Draw NSFS wet tool across a floor area until no more wetness is seen on the floor. It is not necessary to rub the tool on the floor. Re-wet the tool in NSFS and continue to apply where you left off until the entire area has been treated with the first coat.

(2) NSFS AA (WITH ADDITIVES)
Use a paint roller (short nap, or sponge) to apply evenly over the floor and then followed with a finish touch with a dry sponge paint roller

For both NSFS and NSFS AA
Open windows for ventilation and use a blower to speed up the drying time. Each coat must be absolutely dry to the touch before application of the next coat. Apply total number of 4 coats for the first time application.

After the final coat has been applied secure the area and allow it to dry and to start the curing process. NSFS requires 96 hours to fully cure, which means that it will get hard and it will get harder over time. On areas where only light foot traffic will pass, secure this area for at least 8 hours from all. We suggest that you cover this floor with rolls of cardboard secured to avoid it being kicked around if necessary. Do not drag heavy object such as furniture over any sealed floor to avoid damage from abrasion to NSFS. Do not cover newly sealed floor with rubber mats, or similar unbreathable materials until it is fully cured.

Do not clean or wash your newly sealed floor before 96 hours.

Do not apply NSFS outside if it is likely to rain.

Never apply NSFS to any area that will be either under water or will be constantly wet with water. Should any sealed area become wet for too long usually exceeding 5 days, it may turn white temporarily until the water dries. Then, it will turn back to being clear.

Note that high humidity will extend the drying times and will delay and extend the curing times. Apply NSFS in conditions of moderate to low humidity for better drying results.

PRODUCT USE ESTIMATES:

For non-porous materials such as porcelain, ceramic tiles, metal and currently sealed flooring, the approximate coverage for 4 coated coats is around 400 sq ft – 800 sq ft per gallon.

For porous material such as quarry tile, brick, wood, concrete and porous paint, the coverage will be smaller.

MAINTENANCE DIRECTIONS:

1. Use a light dilution of a neutral cleaner for normal, daily cleaning. The use of anything but a neutral cleaner will dull or strip NSFS. If necessary, use a soft nylon brush, scrubbing machine, or a pressure washer on low setting. Do not use a high water pressure on NSFS AA (NSFS with additive) installations.

2. Cleaner residues allowed to dry on NSFS will dull the high gloss in time.

3. Use a disinfectant known not to harm plastics/finishes. A disinfectant sprayed on the floor near a urinal area can strip or damage NSFS in time.

4. Should any area of a floor become dull over time or worn, the easiest procedure is to reapply more NSFS over the clean worn/dull area. It will blend into the rest of the floor and match the high gloss elsewhere on the floor. Apply a new coat of NSFS over the floor to restore the high gloss on the entire floor.

5. NSFS can be burnished to restore much of the high gloss with a low speed machine (175-300 RPM) with a red pad and a 4-1 dilution of NSFS with water spray misted over the floor before burnishing. This will also remove scuff marks. Then use a white pad with same low speed floor machine to polish the floor, which will restore gloss.
   CAUTION: Burnishing the floor will reduce the level of high gloss as it originally appears. Use a cleaner to remove scuffmarks. Apply a fresh coat of NSFS over a part or over the entire floor for highest gloss.

   DO NOT USE ANY BUFFING DEVICE ON NSFS AA (WITH ADDITIVE)

6. NSFS does not require stripping. However, it can be stripped with a high pH ammoniated stripper, and small selected areas could be sanded off with a

sandpaper.

STORAGE

NSFS is water-based solution and it should be stored in above freezing temperature. Product shelf life is 5 years.

WARNING: THIS PRODUCT CANNOT BE ALLOWED TO FREEZE IN THE CONTAINER AS IT WILL BE RUINED WHEN THAWED.

LIMITATION OF LIABILITY:

You understand and agree that the manufacturer shall not be liable for any direct, indirect, incidental, consequential or exemplary damages, including but not limited to, damages for loss of profits, data or other intangible losses (even if manufacturer has been advised of the possibility of such damages), resulting from the use or the inability to use the product(s) and or service(s) or any misuse of the product(s) and or service(s) in a manner not in accordance with their intended use. The user assumes full responsibility and risk of testing this product for the particular application and for determination of proper disposal method of chemical residues and cleaning implements according to local laws and regulations. In no event shall the manufacturers be liable for consequential or incidental damages exceeding the cost of this product.

CASTCO

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

Test Certificate

Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer (Pull-Meter Method) [ASTM C 1028 - 07]

Date of issue : 03 July 2014

Castco LRN : CT0140626-1

Details as supplied by customer

Customer : Customer's Ref. No. : --

Address : Room 1504, 15/F., Ricky Centre, 36 Chong Yip Street, Kwun Tong, Kowloon Contract No. : --

Job Title : --

Sample Description :-

Work Size : 200 mm (Length) x 200 mm (Width) x -- mm (Thickness)

Type : Floor Tile Classification : --

Brand : -- Manufacturer : --

Laboratory test results

Date sample received : 26 June 2014 Date of test : 30 June 2014

Dry condition over as-received test surface

Specimen I.D.		1				2				3			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	12.99	12.35	11.58	12.23	12.48	12.61	12.74	12.33	12.79	12.17	11.57	12.29
Sum of force reading (RD)	(kg)	49.15				50.16				48.82			
Number of pulls (N)		4				4				4			
Dry calibration factor (XD)		0.26											
Static coefficient of friction (FD)		0.81				0.82				0.81			
FD=(RD/NW)+XD	(Average)	0.81											

Wet condition over as-received test surface

Specimen I.D.		1				2				3			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	7.21	6.59	6.82	6.92	6.39	6.51	6.24	6.47	7.27	6.83	6.30	6.90
Sum of force reading (Rw)	(kg)	27.54				25.61				27.30			
Number of pulls (N)		4				4				4			
Wet calibration factor (Xw)		0.06											
Static coefficient of friction (Fw)		0.37				0.35				0.37			
Fw=(Rw/NW)+Xw	(Average)	0.36											

Dry condition over after cleaning test surface

Specimen I.D.		1				2				3			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	11.16	11.27	11.34	11.29	11.28	11.32	11.09	11.21	11.94	11.46	12.01	11.43
Sum of force reading (RD)	(kg)	45.06				44.90				46.84			
Number of pulls (N)		4				4				4			
Wet calibration factor (XD)		0.26											
Static coefficient of friction (FD)		0.77				0.76				0.79			
FD=(RD/NW)+XD	(Average)	0.77											

Wet condition over after cleaning test surface

Specimen I.D.		1				2				3			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	6.35	6.17	6.26	6.38	6.29	6.25	6.41	6.17	6.45	6.62	6.19	6.84
Sum of force reading (Rw)	(kg)	25.16				25.12				26.10			
Number of pulls (N)		4				4				4			
Wet calibration factor (Xw)		0.06											
Static coefficient of friction (Fw)		0.34				0.34				0.35			
Fw=(Rw/NW)+Xw	(Average)	0.34											

Remark :

1. Test results relate only to the specimens tested.

Checked by : CHEUNG CHUN PONG
Laboratory Supervisor

End of Report

Certified by : K.M. Wong
WONG KA MAN
Laboratory Manager

Form No. : CTile-Friction(07) T dd 07/05/2013

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CASTCO

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LTD.

Test Certificate

Determining the Static Coefficient of Friction of Ceramic Tile and
Other Like Surfaces by the Horizontal Dynamometer (Pull-Meter Method)
[ASTM C 1028 - 07]

Date of issue : 11 June 2014
Page 1 of 1 page(s)

Castco LRN : CT0140526-2

Details as supplied by customer

Customer :
Customer's Ref. No. : --
Address : Room 1504, 15/F., Ricky Centre, 36 Chong Yip Street, Kwun Tong, Kowloon
Contract No. : --
Job Title : --
Sample Description :-
Work Size : 200 mm (Length) x 200 mm (Width) x 7 mm (Thickness)
Type : Blocksil No Slip Floor Seal S (film only on tiles)
Classification : --
Brand : --
Manufacturer : --

Laboratory test results

Date sample received : 26 May 2014
Date of test : 27 May 2014

Dry condition over as-received test surface

Specimen I.D.		1B				2B				3B			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	16.84	16.79	17.10	16.83	16.49	16.54	16.72	16.93	16.58	16.86	16.90	16.71
Sum of force reading (RD)	(kg)	67.56				66.68				67.05			
Number of pulls (N)		4				4				4			
Dry calibration factor (XD)		0.26											
Static coefficient of friction (FD)		1.02				1.01				1.01			
FD=(RD/NW)+XD	(Average)	1.01											

Wet condition over as-received test surface

Specimen I.D.		1B				2B				3B			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	15.35	15.97	15.73	15.14	15.62	15.44	15.93	15.63	15.42	15.56	15.71	15.29
Sum of force reading (Rw)	(kg)	62.19				62.62				61.98			
Number of pulls (N)		4				4				4			
Wet calibration factor (Xw)		0.06											
Static coefficient of friction (Fw)		0.76				0.76				0.75			
Fw=(Rw/NW)+Xw	(Average)	0.76											

Dry condition over after cleaning test surface

Specimen I.D.		1B				2B				3B			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	16.39	16.52	16.60	16.48	16.49	16.67	16.71	16.59	16.48	16.32	16.90	16.74
Sum of force reading (RD)	(kg)	65.99				66.46				66.44			
Number of pulls (N)		4				4				4			
Wet calibration factor (XD)		0.26											
Static coefficient of friction (FD)		1.00				1.00				1.00			
FD=(RD/NW)+XD	(Average)	1.00											

Wet condition over after cleaning test surface

Specimen I.D.		1B				2B				3B			
Weight of heel assembly+22kg mass (W)	(kg)	22.304				22.304				22.304			
Force reading	(kg)	15.33	15.46	15.32	15.29	15.41	15.71	15.39	15.48	15.56	15.59	15.71	15.44
Sum of force reading (Rw)	(kg)	61.40				61.99				62.30			
Number of pulls (N)		4				4				4			
Wet calibration factor (Xw)		0.06											
Static coefficient of friction (Fw)		0.75				0.75				0.76			
Fw=(Rw/NW)+Xw	(Average)	0.75											

Remark :
1. Test results relate only to the specimens tested.

Checked by : CHEUNG CHUN PONG
Laboratory Supervisor

End of Report

Certified by : WONG KA MAN
Laboratory Manager

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HOKLAS 032 TEST

Test Certificate

Measuring surface frictional properties using the British Pendulum Skid Resistance Tester [ASTM E 303-93 (Reapproved 1998)]

Date of issue: 28 April 2015

 Castco LRN: HC0150328-1

Details as supplied by client

Client : Cheung Kin Hong Kong Ltd. Client's ref. no.: --

Contract no.: -- Job Title : --

Test specimen : Laboratory test "Blocksil No Slip Floor Seal AA coated on Floor Tiles"

Sample description: Ceramic Tile With Coating/Sealer Size: 200 mm x 200 mm

Test Result

Date sample received : 28 March 2015 Date of test : 01 April 2015

Specimen no.	Location	Individual reading wet skid resistance value			
1	--	88	88	88	88
2	--	88	89	88	88
--	--	--	--	--	--
--	--	--	--	--	--
--	--	--	--	--	--

Remarks : 1. Test result relates only to the specimen tested.
2. This test report supersedes previous test report of Castco LRN HC0150328-1 issued on 02 April 2015.

Checked by: CHEUNG CHUN PONG
Laboratory Supervisor

End of Report

Approved Signatory : WONG KA MAN
Laboratory Manager

1. PRODUCT AND SUPPLIER INFORMATION

Product Name: BLOCKSIL No Slip Floor Seal WA
MSDS Number: NSFS WA Product Number: WA Product Synonyms: None
Chemical Family or Formula: Proprietary Blend of Water, Acrylic Polymer and Propertary Additives

Principal: Blocksil Ltd
Cathedral House 5 Beacon Street
Lichfield WS13 7AA UK

Phone: 015 43 887 840
Fax: 015 43 887 840
email: info@blocksil.co.uk

2. COMPOSITION AND INFORMATION ON INGREDIENTS

CAS #	Material or Component		Exposure Limits			
		%	RQ#	TWA*	STEL*	WEEL*
7732-18-5	Water	<50%	None	NE	NE	A4
Not Hazardous	Acrylic Polymer	<50%	None	NE	NE	A4
Trade-Secret	Additive Blend (proprietary)	<10%	None	NE	NE	NE

*TWA= Time Weighted Average; STEL= Short Term Exposure Limited,; WEE = Workplace Employee Exposure Level

A1= "Confirmed Human Carcinogen; A2 = Suspected Human Carcingen; A3 = Not Classmate as a Human Carcinogen

A4 = Not Classifiable as a human carcinogen; A5 = Not Suspected as Human carcinogen BEI = indicates a Biological Exposure Limit exists for this material. NE = Not Established

3. HAZARDS IDENTIFICATION

Primary Routes of Exposure: Inhalation, Eye Contact, Skin Contact.

Immediate (Acute) Health Effects

Inhalation Toxicity: Short term health effects are not expected.

Eye Contact: May cause minor eye irritation upon direct contact.

Ingestion Irritation: Not a likely source of exposure. This material might be considered slight health hazard if ingested in large quantities, causing irritation, nausea, vomitting and diarrhea.

Skin Contact: No irritation likely with brief contact.

Acute Target Organ Toxicity: No data.

Prolonged (Chronic) Health Effects: See Section 11, Toxicological Information

Chemical Interactions: Avoid contact with strong oxidizing agents.

Medical Conditions Aggravated: None found.

Human Threshold Response Data

Odor Threshold: Not established.

Irritation Threshold: Not established.

Hazard Category Classifications and Ratings

Hazard Categories:	Health	Fire	Pressure	Reactivity
Immediate	Yes	No	No	No
Delayed	No	No	No	No

HMIS Hazard Ratings: Health: 1 Fire: 0 Instability: 0 Other: B (Goggles, Gloves)
NFPA 704 Hazard Ratings: Health: 1 Flammability 0 Reactivity: 0 Special NA

Hazard Ratings: Least: 0 Slight: 1 Moderate: 2 High: 3 Extreme: 4

4. FIRST AID

Inhalation: Remove individual to fresh air. If not breathing, give artificial respiration or oxygen as appropriate. Seek medical attention if breathing becomes difficult.

Skin Contact: Flush skin with water for 15 minutes and remove contaminated clothing. Wash clothing befoe use

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart. See a physician if irritation persists.

Ingestion: If swalloved give 2 glasses of water to drink. Do NOT induce vomiting. Call a physician. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammability Summary (OSHA): Non Combustible liquid.
Auto-ignition Temperature: NA
Upper Flammable/Explosive Limit, % in air: NA
Lower Flammable/Explosive Limit, % in air: NA
Unusual Hazards: Material may splatter above 100C/212F. Dried product may burn.
Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
Special Procedures: Move undamaged containers from fire area if it can be done without risk. Water spray may be used to cool closed containers exposed to heat and flame.
Fire Fighting Instructions: In case of fire, use normal fire fighting equipment including an approved self-contained breathing apparatus (SCBA). Use water to cool containers.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls and Personal Protection for recommendations. If exposed to material during clean-up, see SECTION 4, First Aid, for actions to follow.

Spill Mitigation Procedures: Keep spectators away. Spill area may be slippery. Use care to avoid falling. Eliminate the source of the spill. Ventilate the spill area. Contain to spill immediately with inert material (e.g. sand, earth). Transfer spilled material to suitable containers for recovery or disposal. Keep spills and cleaning runoff out of municipal water. Discarded materials according to local authority regulation.

7. HANDLING AND STORAGE

Handling: Do not open drums in unventilated areas. Avoid breathing concentrated vapors. Since empty containers retain product residue (vapors and/or liquid) follow all MSDS precautions even with empty containers. Wash hands with soap and water after handling. Remove contaminated clothing or shoes. Wash clothing before use again. Do not take internally.
Storage: Keep containers tightly closed. Store in a cool, dry, well ventilated area. Do not allow the product to freeze. The storage temperature range is 1C/34F to 60C/140F.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation: None required where adequate ventilation conditions exists. An approved particulate/vapour respirator is advised in areas with poor ventilation, or if the product is sprayed.

Protective Equipment for Routine Use of Product Where Appropriate:

Respiratory Protection: See previous paragraph. Material should be handled or transferred with adequate ventilation.

Respirator Type(s): Approved with organic vapor cartridges with appropriate particulate filter may be permissible.

Skin: Use rubber or plastic gloves for direct contact. Discard gloves with tears, pinholes or wear. Long seleeved shirts and trousers are recommended when handling chemicals. Wash hands with soap water after handling

Eyes: Use safety glasses or chemical splash goggles. It is generally recognized that contact lenses should not be worn when working with chemicals because the contact lenses may contribute to the severty or an eye inquiry.

9. PHYSICAL DATA

Appearance: White emulsion liquid
Color: Milky white
Odor: Mild
pH (@ 25 Deg. C): 7.5 - 7.8
Octanol/Water Coeff: No data
Solubility in Water: Dilutable
Specific Gravity: 1 approx.
Vapor Density (Air = 1): < 1 Water
Vapor Pressure: 14 mm Hg @ 20C/68F Estimate
Evaporation Rate (Butyl acetate=1) < 1 Water
VOC (volatile organic compounds): 105 g/litre
Initial Boiling Point: 100°C/212F Estimate
Freezing Point: 0°C/34F Initial

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary: This material is stable. However, avoid temperatures above 177C/350F, the onset of polymer decomposition. Thermal decomposition is dependent on time and temperature.

Hazardous Decomposition: Combustion of the polymer film will yield monomers, and normal combustion products including carbon dioxide and carbon monoxide. Avoid breathing smoke or fumes.

Hazardous Polymerization: Will not occur.

Incompatibility: This product is incompatible with strong oxidizing agents.

Conditions to Avoid: Very high or very low temperatures.

11. TOXICOLOGICAL INFORMATION

Acute Data: Not toxicity data are available for this material.

Carcinogenicity Data: Components of this material are not considered to be carcinogens by the International Agency for Research on Cancer.

12. ECOLOGICAL INFORMATION

Do not allow material to be released to the environment without proper governmental permits

Ecological Toxicity Values:
governmental permits.

Environmental fate : No data
Environmental toxicity: No data

13. DISPOSAL CONSIDERATIONS

Waste Disposal Summary:
Discard in accordance with local and state regulations.

14. TRANSPORTATION INFORMATION

Not a hazardous material for transportation.
US DOT Hazard Class: NONREGULATED

15. REGULATORY INFORMATION

Product related hazard information:
Hazard symbols: Xi Irritant
Risk phrases: 36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases:

23 Do not breathe gas/fumes/vapor/spray.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice if irritaion presists.
36 Wear suitable protective clothing.

16. ADDITIONAL INFORMATION

MSDS REVISION STATUS: (Prepared by MSDS Committee.)

THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT OR OTHERWISE BE EXPOSED TO THIS PRODUCT. WE BELIEVE THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF ITS PUBLICATION DATE, BUT MAKE NO WARRANTY THAT IT IS. IF THIS MSDS IS MORE THAN THREE YEARS OLD YOU SHOUD CONTACT THE SUPPLIER TO MAKE CERTAIN THAT THE INFORMATION IS CURRENT.

The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not related to use in combination with any other material or in any process. This material Safety Data Sheet (MSDS) does not constitute the users own assessment of work place risk as required by other health & safey regulation (eg. Health & Safety at Work Act of 1974, the Control of Substances Hazardous to Health Regulation 1988).

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