



Product Lens

a materials health assessment

COMPANY AND PRODUCT INFO

Issued to	Belden
Description	Indoor Distribution Cable, Type UL OFNR / C(UL) OFN, FT4, 36 Fiber
For the Products	FlxD036RK
Certification Period	January 2018- January 2020
Assessor	MBDC basis methodology v3.1*



Qualifications

- LEED BPDO Credit: Material Ingredients Option 1 Qualifies for as 1 product
- LEED BPDO Credit: Material Ingredients Option 2 Qualifies for 100% of cost

Other Achievements



MATERIALS / INGREDIENTS INFORMATION

Disclosure Level: 100 ppm 1000 ppm

The following table represents the top 95% of the material ingredient disclosure and ratings. For the full ingredient disclosure information, please see the table on the reverse side.

Materials	Result			
	Supply Chain/ MFG	Install	Use	End of Use
PVC	I,D			I,D
Plasticizer				
Flame Retardant				
Aramid Fibers				
Fibrous Glass				
Plasticizer				
Flame Retardant				

Exposure Indicator

D = Dermal, Skin
I = Inhalation, air
O = Oral, mouth

*No Indicator means no potential exposure scenario identified

Color Ratings

Green	Low or mild hazard identified and/or potential exposure
Yellow	Moderate hazard identified and/or potential exposure
Red	Problematic concern found. The combination of the hazard and potential exposure leads to some caution for some uses and/or applications.
Grey	Cannot be fully assessed due to either lack of complete formulation, or lack of toxicological information for one or more ingredients.
Black	Highly problematic material containing one or more chemicals classified as CMR and having a plausible route of exposure.

Go to ul.com/spg to view the full, detailed materials ingredient list

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*Methodology based on Cradle to Cradle Certified™ Product Material Health Assessment Methodology v3.1



PRODUCT LENS MATERIALS
TRANSPARENCY AND
DISCLOSURE.
VIEW SPECIFIC INGREDIENTS
AND EVALUATIONS:
UL.COM/PL

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Material	CAS Number	Role	%					Comment
				MFG	Install	Use	End of Use	
PVC	9002-86-2	Jacket/ Colorant/ Buffer Tube	42-48	I,D			I,D	Lifecycle concerns around use of halogenated polymers.
Plasticizer	Proprietary	Jacket	15-19					Little to no risk across all product phases
Flame Retardant	Proprietary	Jacket/ Buffer Tube	12-13.5					Some chronic toxicity concerns, but little risk as used in this product.
Aramid Fiber	Proprietary	Aramid	<8.4					Little to no risk across all product phases
Fibrous Glass	Proprietary	Glass Fiber Reinforcement	3.8-4.7					Acceptable for use in all phases.
Plasticizer	Proprietary	Colorant	0.9-2.0					CMR - (CA Prop 65 list, suspected endocrine disruptor and potential reproductive toxicant)
Flame Retardant	Proprietary	Jacket	1.4-1.6					Suspected human carcinogen -(CA Prop 65, IARC Group 2B, MAK Group 2)
Proprietary	Proprietary	Buffer tube	1.4-1.6					Some chronic toxicity concerns, but little risk as used in this product.
Proprietary	Proprietary	Buffer tube	1.4-1.6	I,D			I,D	Lifecycle concerns around use of halogenated polymers.
Fiber	Unknown		1.2-1.3					Unknown
Plasticizer	Proprietary	Jacket	0.7-0.8					Little to no risk across all product phases
Proprietary	Proprietary	Buffer tube	0.7-0.8					Little to no risk across all product phases
Proprietary	Proprietary	Buffer tube	0.5-0.6					Little to no risk across all product phases
Proprietary	Proprietary	Jacket	0.5-0.6					Little to no risk across all product phases
Proprietary	Proprietary	Glass Fiber Reinforcement	0.4-0.55	D	D	D	D	Strong skin sensitizer. Assuming it is fully reacted with the other monomers listed here and is present below 100 ppm in the finished resin it will be acceptable for use.
Proprietary	Proprietary	Various components	<0.52	I				Inhalation concerns around mining/processing, but in cable production, installation, use, and end of use there is little to no risk.
Proprietary	Proprietary	Buffer tube	0.4-0.5					Little to no risk across all product phases
Proprietary	Proprietary	Jacket, colorants	0.4-0.5					Some chronic toxicity concerns, but little risk as used in this product.
Proprietary	Proprietary	Jacket, colorants	0.3-0.4					Little to no risk across all product phases
Proprietary	Proprietary	Colorant	<0.3					Little to no risk across all product phases
Proprietary	Proprietary	Glass Fiber Reinforcement	0.15-0.3	D	D	D	D	Strong skin sensitizer. Assuming it is fully reacted with the other monomers listed here and is present below 100 ppm in the finished resin it will be acceptable for use.
Proprietary	Proprietary	Glass Fiber Reinforcement	0.1-0.3					Acceptable for use in all phases.
Proprietary	Proprietary	Buffer tube	0.2-0.3					Little to no risk across all product phases
Proprietary	Proprietary	Jacket	0.15-0.25					Little to no risk across all product phases
Proprietary	Proprietary	Glass Fiber Reinforcement	0.1-0.2	D	D	D	D	Strong skin sensitizer. Assuming it is fully reacted with the other monomers listed here and is present below 100 ppm in the finished resin it will be acceptable for use.
Proprietary	Proprietary	Buffer tube	0.1-0.2	D				Severe damage to eye possible during manufacturing phase, little to no risk across all other use phases
Proprietary	Proprietary	Buffer tube	0.1-0.2					High aquatic toxicity so care should be taken during the manufacturing and end of use phases to keep this substance out of the environment
Proprietary	Proprietary	Jacket	0.05-0.1					Little to no risk across all product phases
Proprietary	Proprietary	Jacket	0.05-0.1					Little to no risk across all product phases
Proprietary	Proprietary	Colorant	0.05-0.1					Little to no risk across all product phases
Proprietary	Proprietary	Buffer tube	0.05-0.1					Little to no risk across all product phases
Proprietary	Proprietary	Buffer tube	0.05-0.1					Little to no risk across all product phases
Proprietary	Proprietary	Colorant	<0.05	I,D			I,D	Lifecycle concerns around use of halogenated polymers.
Proprietary	Proprietary	Colorant	<0.03	I,D			I,D	Lifecycle concerns around use of halogenated polymers.
Sizing	Mixture	Glass Fiber Reinforcement	<0.03					Unknown
Proprietary	Proprietary	Buffer tube	0.03					Little to no risk across all product phases
Proprietary	Proprietary	Colorant	<0.02					Little to no risk across all product phases
Red Pigment		Colorant	<0.02	I,D			I,D	Lifecycle concerns around use of halogenated polymers.
Proprietary	Proprietary	Buffer tube	0.02					Little to no risk across all product phases
Proprietary	Unknown	Aramid	<0.02					Unknown
Proprietary	Unknown	Aramid	<0.02					Unknown
Proprietary	Proprietary	Aramid	<0.02	I,D			I,D	Lifecycle concerns around use of halogenated polymers.
Proprietary	Proprietary	Colorant	0.01					CMR - (CA Prop 65)
Proprietary	Proprietary	Glass Fiber Reinforcement	0.01	D	D	D	D	Strong skin sensitizer. Assuming the residual is below 100 ppm this is acceptable for use

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