SAFETY DATA SHEET



CircuitWorks® Overcoat Pen (UFI)

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier	
Product name	: CircuitWorks® Overcoat Pen (UFI)
Product code	: CW3300 Green, CW3300G
Product description	: Coating.
Product type	: Liquid.
Other means of identification	: CW3300 Green, CW3300G Industrial/Professional use UFI: J0A8-S0XE-X00V-KM6J

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

Not applicable.

1.3 Details of the supplier of the safety data sheet

Manufacturer Chemtronics 8125 Cobb Center Drive Kennesaw, GA 30152

Tel. 770-424-4888 or toll free 800-645-5244

Distributor

Importer ITW Contamination Control BV Saffierlaan 5 VZ-2132 Hoofddorp The Netherlands

Email: info@itw-cc.com

Tel: +31 88 1307 400 FAX: +31 88 1307 499 Website: www.Chemtronicseu.com

website: www.Cnemtronicseu.com

e-mail address of person responsible for this SDS

: Importer/Only Representative Bay 150 Shannon Industrial Estate Shannon County Clare Ireland V14 DF82 +353 61 771 500 customerservice.shannon@itwpp.com

National contact

CircuitWorks® Overcoat Pen (UFI)

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

ITW Contamination Control BV Saffierlaan 5 VZ-2132 Hoofddorp The Netherlands

Email: info@itw-cc.com

Tel: +31 88 1307 400 FAX: +31 88 1307 499 Website: www.Chemtronicseu.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number	: EMERGENCY HEALTH INFORMATION:
	Austria +43 1 31304 5620, Belgium +32022649636, Bulgaria +359 2 9154 409,
	Croatia +38514686910,Cyprus +3572240561, Czech Republic +420267082257,
	Denmark +45 72 54 40 00, Estonia +3726943384, Finland +358 5052 000, France
	+33 3 85 21 92, Germany +49-30-18412-0, Greece +302106479250, Hungary +34
	(1) 476 1136, Ireland +35318092566, Italy +390649906140, Latvia +371 67032600,
	Lithuania +370 70662008, Luxembourg +352 24785551, Netherland +31 88 75 585
	61, Norway +47 21 07 70 00, Poland +48 42 2530 400, Portugal +351213303271,
	Romania +40213183606, Slovakia +421 2 5465 2307, Slovenia +38614006039,
	Spain +34 917689800, Sweden +46104566750
	United Kingdom (England or Wales) 0845 46 47 or Scotland 08454 24 24 24 (UK only
<u>Supplier</u>	-
Telephone number	: Chemtronics Product Information: 800-TECH-401 (800-832-4401)
	Chemtronics Customer Service: 800-645-5244
Hours of operation	: 8:00 AM to 5:00 PM
Information limitations	: EMERGENCY HEALTH INFORMATION:
	EMERGENCY SPILL INFORMATION:
	Transport information

SECTION 2: Hazards identification

2.1 Classification of the sub	stance or mixture
Product definition	: Mixture
Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	Regulation (EC) No. 1272/2008 [CLP/GHS]
The product is classified as r	nazardous according to Regulation (EC) 1272/2008 as amended.
Ingredients of unknown toxicity	 1.5 percent of the mixture consists of component(s) of unknown acute oral toxicity 21.5 percent of the mixture consists of component(s) of unknown acute dermal toxicity 66.5 percent of the mixture consists of component(s) of unknown acute inhalation toxicity
Ingredients of unknown ecotoxicity	: Contains 31.5% of components with unknown hazards to the aquatic environment
See Section 16 for the full te	xt of the H statements declared above

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

CircuitWorks® Overcoat Pen (UFI)

SECTION	2: Hazards	identification
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Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.
Precautionary statements		
Prevention	:	Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapour.
Response	:	IF INHALED: Call a POISON CENTER or doctor if you feel unwell. 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 or attention.
Storage	:	Store in a well-ventilated place. Keep container tightly closed.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	:	propyl acetate
Supplemental label elements	1	FOR INDUSTRIAL USE ONLY For professional use only.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
Special packaging requirem	en	<u>ts</u>
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Not applicable.
2.3 Other hazards		
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	:	None known.

SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
2-methoxy-1-methylethyl acetate	EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≥25 - ≤50	Flam. Liq. 3, H226	-	[2]
propyl acetate	EC: 203-686-1 CAS: 109-60-4 Index: 607-024-00-6	≥10 - <25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 Aquatic Chronic 3, H412	-	[1]

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SECTION 3: Composition/information on ingredients

	ompooldonanionnat		igroaionto		
			EUH066		
butanone	EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3	≥10 - ≤25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 See Section 16 for the full text of the H statements declared above.	-	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

<u>Type</u>

4

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid n	neasures
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms Eye contact : Adverse symptoms may include the following: pain or irritation watering redness

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SECTION 4: First aid measures

Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: Adverse symptoms may include the following: Ingestion Seek medical attention.

4.0 maloadon or any min	culate inculour attention and special reatment needed
Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
5.3 Advice for firefighters		
Special protective actions for fire-fighters	-	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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SECTION 6: Accidental release measures

6.1 Personal precautions, pro	ote	ctive equipment and emergency procedures
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and material for	со	ntainment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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SECTION 7: Handling and storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations

Not available.Not available.

Industrial sector specific solutions

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

EU OEL (Europe, 10/2019). Absorbed through skin. Notes: list
of indicative occupational exposure limit values STEL: 550 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 275 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values STEL: 900 mg/m ³ 15 minutes. STEL: 300 ppm 15 minutes.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

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SECTION 8: Exposure controls/personal protection

ECTION 8: Exposure con					1
Product/ingredient name	Туре	Exposure	Value	Population	Effects
2-methoxy-1-methylethyl acetate	DNEL	Long term Oral	1.67 mg/	General	Systemic
			kg bw/day	population	
	DNEL	Long term	33 mg/m³	General	Local
		Inhalation		population	
	DNEL	Long term	33 mg/m³	General	Systemic
		Inhalation		population	
	DNEL	Long term Dermal	54.8 mg/	General	Systemic
			kg bw/day	population	
	DNEL	Long term Dermal	153.5 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	275 mg/m ³	Workers	Systemic
	DNEL	Short term	550 mg/m ³	Workers	Local
		Inhalation	Ũ		
propyl acetate	DNEL	Long term	149 mg/m ³	General	Local
		Inhalation	, C	population	
	DNEL	Long term	149 mg/m ³	General	Systemic
		Inhalation	, C	population	
	DNEL	Short term	298 mg/m ³	General	Local
		Inhalation	-	population	
	DNEL	Short term	298 mg/m ³	General	Systemic
		Inhalation	_	population	-
	DNEL	Long term	420 mg/m ³	Workers	Local
		Inhalation	_		
	DNEL	Long term	420 mg/m ³	Workers	Systemic
		Inhalation			
	DNEL	Short term	840 mg/m ³	Workers	Local
		Inhalation	_		
	DNEL	Short term	840 mg/m ³	Workers	Systemic
		Inhalation			
butanone	DNEL	Long term Oral	31 mg/kg	General	Systemic
			bw/day	population	
	DNEL	Long term	106 mg/m ³	General	Systemic
		Inhalation		population	
	DNEL	Long term Dermal	412 mg/kg	General	Systemic
			bw/day	population	
	DNEL	Long term	600 mg/m ³	Workers	Systemic
		Inhalation			
	DNEL	Long term Dermal	1161 mg/	Workers	Systemic
			kg bw/day		

PNECs

No PNECs available

8.2 Exposure controls		
Appropriate engineering controls	:	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Individual protection measu	ires	
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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SECTION 8: Exposure controls/personal protection

•	· · ·
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

: Liquid.
: Green.
: Characteristic.
: Not available.
: Not available.
: 111°C (231.8°F)
: Not available.
: Lower: 1.7% Upper: 11%
: Closed cup: -1°C (30.2°F) [Tagliabue]
:

9.1 Information on basic physical and chemical properties

CircuitWorks® Overcoat Pen (UFI)					
SECTION 9: Physica	l and ch	emical pro	operties		
Ingredient name		°C	°F	Method	
2-methoxy-1-methylethyl acetate		333	631.4	DIN 51794	
[1,3,8,16,18,24-hexabromo- 2,4,9,10,11,15,17,22,23,25-decac phthalocyaninato(2-)-N29,N30,N3		376	708.8	EU A.16	
propyl acetate		380	716	DIN 51794	
butanone		404	759.2		
Decomposition temperatur	e : Not	available.	·	·	
рН	: Not	available.			
Viscosity	: Not	available.			
Solubility in water	: Not	available.			
Partition coefficient: n-octa water	anol/ : Not	applicable.			
Vapour pressure	: 10.4	kPa (78 mm ⊦	lg)		
Relative density	: 0.9				
Vapour density	: >1[/	Air = 1]			
Particle characteristics					
Median particle size	: Not	applicable.			
9.2 Other information					
9.2.1 Information with rega	rd to physic	al hazard clas	ses		
Explosive properties	: Not	applicable			
Oxidising properties		applicable			
9.2.2 Other safety charact					
Miscible with water		available.			
Evaporation rate	: >1 (butyl acetate =	1)		
SECTION 10: Stabili	ty and re	activity			
10.1 Reactivity	: No spec	ific test data re	lated to reactivity av	vailable for this product or its ingree	lients.
10.2 Chemical stability	: The pro	duct is stable.			
10.3 Possibility of nazardous reactions	: Under n	ormal conditior	ns of storage and us	e, hazardous reactions will not occ	ur.
10.4 Conditions to avoid	braze, s	older, drill, grin		k or flame). Do not pressurise, cut ers to heat or sources of ignition. ned areas.	

10.5 Incompatible materials	:	Reactive or incompatible with the following materials: oxidising materials
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

CircuitWorks® Overcoat Pen (UFI)

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
propyl acetate	LD50 Oral	Rat	9370 mg/kg	-
butanone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
propyl acetate	9370	N/A	N/A	N/A	N/A
butanone	2737	6480	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
propyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
butanone	Skin - Mild irritant Skin - Mild irritant	Rabbit Rabbit	-	mg 500 mg 24 hours 14	-
butanone	Skin - Moderate irritant	Rabbit	-	mg 24 hours 500	-
Conclusion/Summary	· Not available			mg	

Conclusion/Summary	: Not available.	
Sensitisation		
Conclusion/Summary	: Not available.	
Mutagenicity		
Conclusion/Summary	: Not available.	
Carcinogenicity		
Conclusion/Summary	: Not available.	
Reproductive toxicity		
Conclusion/Summary	: Not available.	
Teratogenicity		
Conclusion/Summary	: Not available.	

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
propyl acetate	Category 3	-	Narcotic effects
butanone	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

CircuitWorks® Overcoat Pen (UFI)

SECTION 11: Toxico	logical information
Information on likely routes of exposure	: Not available.
Potential acute health effects	<u>S</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: May cause skin irritation.
Ingestion	: Do not ingest. If swallowed then seek immediate medical assistance.
Symptoms related to the phy	vsical, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: Adverse symptoms may include the following: Ingestion Seek medical attention.
Delayed and immediate effect	cts as well as chronic effects from short and long-term exposure
Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	ects
Not available.	
Conclusion/Summary	: Not available.
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.
11.2 Information on other ha	
11.2.1 Endocrine disrupting Not available.	j properties
	j properties

CircuitWorks® Overcoat Pen (UFI)

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
propyl acetate butanone	Acute EC50 >500000 µg/l Marine water	Fish - Pimephales promelas Algae - Skeletonema costatum Daphnia - Daphnia magna - Larvae	96 hours 96 hours 48 hours
	Acute LC50 3220000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Conclusion/Summary	: Not available.	•	•

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-methoxy-1-methylethyl acetate	1.2	-	low
propyl acetate butanone	1.4 0.3		low low

12.4 Mobility in soil	
Soil/water partition	: Not available.
coefficient (Koc)	
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	: The classification of the product may meet the criteria for a hazardous waste.
Packaging	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Date of issue/Date of revision

: 1/19/2023

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SECTION 13: Disposal considerations

Special precautions
 This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ΙΑΤΑ
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in : Not available. **bulk according to IMO**

instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU Regulation (EC) No. 1907/2006 (REACH)</u> <u>Annex XIV - List of substances subject to authorisation</u> <u>Annex XIV</u> None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable. on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other EU regulations

Industrial emissions : Not listed (integrated pollution prevention and control) -Air

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SECTION 15: Regulat	to	ry information
Industrial emissions (integrated pollution prevention and control) - Water		Not listed
Ozone depleting substance Not listed.	<u>əs</u>	<u>(1005/2009/EU)</u>
Prior Informed Consent (PI Not listed.	<u>C)</u>	<u>(649/2012/EU)</u>
Seveso Directive This product is controlled und Danger criteria	de	the Seveso Directive.
Category P5c		
National regulations		
International regulations		
Chemical Weapon Convention	on	List Schedules I, II & III Chemicals
Not listed.		
Montreal Protocol Not listed.		
Stockholm Convention on P Not listed.	<u>'er</u>	sistent Organic Pollutants
Rotterdam Convention on P Not listed.	<u>ric</u>	<u>r Informed Consent (PIC)</u>
UNECE Aarhus Protocol on Not listed.	<u>P(</u>	<u>)Ps and Heavy Metals</u>
Inventory list		
Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan		Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): Not determined.
New Zealand		All components are listed or exempted.
Philippines		All components are listed or exempted.
Republic of Korea		All components are listed or exempted.
Taiwan	÷	All components are listed or exempted.
Thailand	-	Not determined.
Turkey		All components are listed or exempted.
United States		All components are active or exempted.
Viet Nam	÷	All components are listed or exempted.
15.2 Chemical safety assessment	:	This product contains substances for which Chemical Safety Assessments are still required.

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SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbroviations and	ATE - Aguta Taviaity Estimate
Abbreviations and	: ATE = Acute Toxicity Estimate
acronyms	CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.
	1272/2008]
	DMEL = Derived Minimal Effect Level
	DNEL = Derived No Effect Level
	EUH statement = CLP-specific Hazard statement
	N/A = Not available
	PBT = Persistent, Bioaccumulative and Toxic
	PNEC = Predicted No Effect Concentration
	RRN = REACH Registration Number
	SGG = Segregation Group
	vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification	
	On basis of test data Calculation method Calculation method	

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Aquatic Chronic 3 Eye Irrit. 2 Flam. Liq. 2 Flam. Liq. 3 STOT SE 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
5101 <u>5</u> 2 5	SI LOI TO TARGET ORGAN TOXICITY - SINGLE EXTOSORE - Calegoly 5
Date of printing	: 1/19/2023
Date of issue/ Date of revision	: 1/19/2023
Date of previous issue	e : 1/19/2023
Version	: 24

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.