

SAFETY DATA SHEET

LPS® HDX (Aerosol)

1. Identification Product identifier

Product identifier	LPS@ HDA (Aelosol)	
Other means of identification	01000	
Part Number		
Recommended use	A degreaser designed to remove grease, oil, dirt and other residues from metal and other hard surfaces near ignition sources.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/ Manufacturer	Distributor information	
Manufacturer		
Company name	ITW Pro Brands	
Address	4647 Hugh Howell Rd.	
	Tucker, GA 30084	
Country	(U.S.A.)	
	Tel: +1 770-243-8800	
In Case of Emergency	1-800-424-9300 (inside U.S.)	
	+001 703-527-3887 (outside U.S.)	
Website	www.lpslabs.com	
E-mail	lpssds@itwprobrands.com	
2. Hazard(s) identification		
Physical hazards	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 2
	Carcinogenicity	Category 1B
	Specific target organ toxicity, single exposure	
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement		heated. Causes skin irritation. Causes serious eye s. May cause cancer. May cause drowsiness or
Precautionary statement		
Prevention	and understood. Avoid breathing gas. Wash th	handle until all safety precautions have been read horoughly after handling. Use only outdoors or in a rotective clothing/eye protection/face protection.
Response	for breathing. If in eyes: Rinse cautiously with if present and easy to do. Continue rinsing. If advice/attention. Call a poison center/doctor if	d: Remove person to fresh air and keep comfortable water for several minutes. Remove contact lenses, exposed or concerned: Get medical you feel unwell. If skin irritation occurs: Get medical medical advice/attention. Take off contaminated
Storage	Store in a well-ventilated place. Keep containe sunlight.	er tightly closed. Store locked up. Protect from
Material name: LPS® HDX (Aerosol)		SDS US

Disposal		
Hazard(s) not otherwise		
classified (HNOC)		
Supplemental information		

Diamagal

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%	
1,1,2-trichloroethylene		79-01-6	90 - 100	
Carbon Dioxide		124-38-9	1 - 5	

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from	During fire, gases hazardous to health may be formed.

the chemical

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. and precautions for firefighters

In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed Fire fighting to heat. Move containers from fire area if you can do so without risk. Containers should be cooled equipment/instructions with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Specific methods Cool containers exposed to flames with water until well after the fire is out.

Contents under pressure. Pressurized container may explode when exposed to heat or flame. General fire hazards

Accidental release measures

Special protective equipment

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of Personal precautions, low areas. Many gases are heavier than air and will spread along ground and collect in low or protective equipment and confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing emergency procedures during clean-up. Avoid breathing gas. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Level 1 Aerosol.
	Store locked up. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Туре	Value	Form
PEL	590 mg/m3	
	200 ppm	
PEL	2 mg/m3	
PEL	9000 mg/m3	
	5000 ppm	
PEL	7 mg/m3	Vapor.
	1 ppm	Vapor.
PEL	525 mg/m3	
	100 ppm	
PEL	560 mg/m3	
	100 ppm	
Туре	Value	
Ceiling	200 ppm	
TWA	100 ppm	
Туре	Value	Form
STEL	25 ppm	
TWA	10 ppm	
STEL	300 ppm	
TWA	200 ppm	
	PEL PEL PEL PEL PEL PEL Ceiling TWA Type STEL STEL	PEL590 mg/m3 200 ppm 2 mg/m3PEL2 mg/m3PEL9000 mg/m3PEL5000 ppm 7 mg/m3PEL1 ppm 525 mg/m3PEL100 ppm 560 mg/m3PEL200 ppmTypeValueCeiling200 ppmTWA100 ppmTypeValueSTEL25 ppmTWA10 ppmTWA10 ppmTWA10 ppmTWA10 ppmTWA300 ppm

Components		Туре			Value	Form
Camphor USP (CAS 76-22-2)		STEL			3 ppm	
		TWA			2 ppm	
Carbon Dioxide (CAS		STEL			30000 ppm	
124-38-9)		0			eccee pp	
,		TWA			5000 ppm	
Diphenyl Oxide (CAS		STEL			2 ppm	Vapor.
101-84-8)		-			1-1-	-1
		TWA			1 ppm	Vapor.
Iso amyl acetate (CAS		STEL			100 ppm	
123-92-2)						
		TWA			50 ppm	
Turpentine (CAS		TWA			20 ppm	
8006-64-2)						
US. NIOSH: Pocket Guide	to Chemical Haz	ards				
Components		Туре			Value	Form
					05	
1,1,2-trichloroethylene		TWA			25 ppm	
(CAS 79-01-6) Butanone (CAS 78-93-3)		STEL			885 mg/m3	
Butanone (CAS 78-93-3)		SIEL			-	
		T \A/A			300 ppm	
		TWA			590 mg/m3	
					200 ppm	
Camphor USP (CAS		TWA			2 mg/m3	
76-22-2) Carbon Dioxide (CAS		STEL			54000 mg/m3	
124-38-9)					30000 ppm	
		TWA			9000 mg/m3	
		IVVA			5000 mg/ms	
Dishasud Ovida (CAC		TWA			• •	Manar
Diphenyl Oxide (CAS 101-84-8)		IVVA			7 mg/m3	Vapor.
101 04 0)					1 ppm	Vapor.
Iso amyl acetate (CAS		TWA			525 mg/m3	rapon
123-92-2)		1			525 mg/mo	
					100 ppm	
Turpentine (CAS		TWA			560 mg/m3	
8006-64-2)					eee mg/me	
,					100 ppm	
US. Workplace Environme	ental Exposure Lo	evel (V	VEEL) Guides			
Components		Туре			Value	
1,2 Butylene Oxide (CAS		TWA			5.9 mg/m3	
106-88-7)						
					2 ppm	
ogical limit values						
ACGIH Biological Exposu	re Indices					
Components	Value		Determinant	Specimer	n Sampling 1	Гime
				-	*	
1,1,2-trichloroethylene (CAS 79-01-6)	15 mg/l		Trichloroacetic acid	Urine	*	
(CAS 79-01-6)	0.5 mg/l		Trichloroethano	Blood	*	
	0.5 mg/l		I, without	DIOOU		
			hydrolysis			
Butanone (CAS 78-93-3)	2 mg/l		MEK	Urine	*	
	-	o door				
* - For sampling details, ple						
ropriate engineering trols	should be mat or other engin	tched t leering	conditions. If app controls to maintai	olicable, use in airborne le	process enclosur evels below recor	e used. Ventilation rates res, local exhaust ventilat nmended exposure limits to an acceptable level. Ey

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Gas.
Form	Aerosol.
Color	Clear. Colorless.
Odor	Sweet. Spice.
Odor threshold	Not established
рН	Not applicable
Melting point/freezing point	Not established
Initial boiling point and boiling range	188.6 °F (87 °C)
Flash point	Tag Closed Cup (None)
Evaporation rate	0.3 (Ethyl Ether = 1)
Flammability (solid, gas)	Non flammable gas.
Upper/lower flammability or expl	osive limits
Flammability limit - lower (%)	8 %
Flammability limit - upper (%)	10.5 %
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	58 mm Hg @ 20°C
Vapor density	4.5
Relative density	Not available.
Solubility(ies)	
Solubility (water)	0.1 %
Partition coefficient (n-octanol/water)	2.4
Auto-ignition temperature	> 788 °F (> 420 °C)
Decomposition temperature	Not established
Viscosity	0.53 cP @ 25° C
Other information	
Explosive properties	Not explosive.
Heat of combustion	< 20 kJ/g
Oxidizing properties	Not oxidizing.
Percent volatile	100 %
Specific gravity	1.41 - 1.47 @ 20°C
VOC	97.8 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

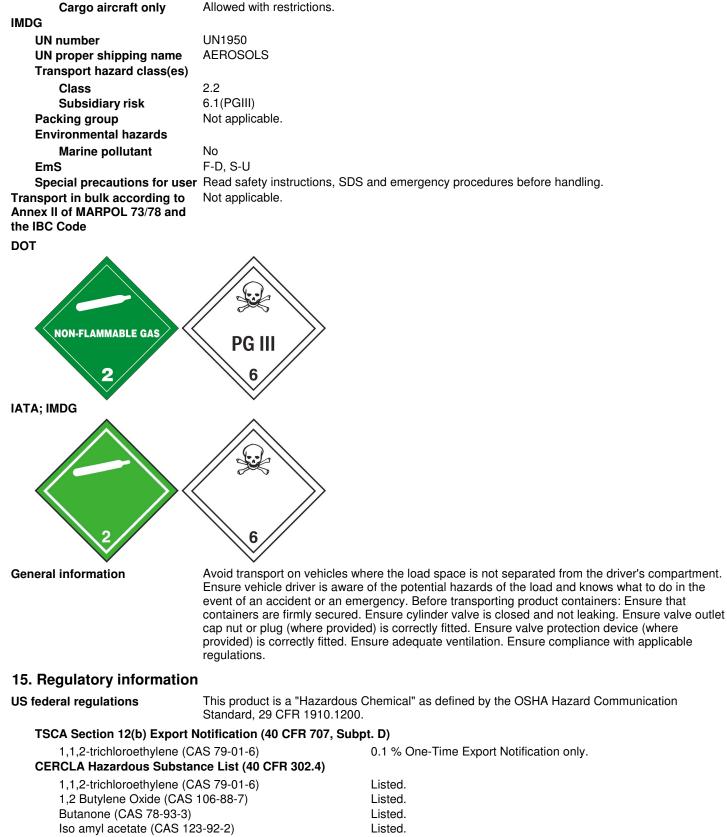
Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Information on toxicological eff	fects

Acute toxicity	Narcotic effects.	
Components	Species	Test Results
1,1,2-trichloroethylene (CA	S 79-01-6)	
Acute		
Dermal		
LD50	Rabbit	20 ml/kg
Inhalation		
LC50	Rat	12500 ppm, 4 Hours
Oral	Det	
LD50	Rat	4920 mg/kg
1,2 Butylene Oxide (CAS 1	06-88-7)	
<u>Acute</u> Dermal		
LD50	Rabbit	1.77 ml/kg, 24 Hours
Inhalation	Tabbit	1.77 milling, 21 modio
Vapor		
LC50	Rat	> 6.3 mg/l, 4 Hours
Oral		
LD50	Rat	1100 µl/kg
Butanone (CAS 78-93-3)		
Acute		
Dermal		
LD50	Rabbit	> 10 ml/kg
Oral		
LD50	Rat	2054 mg/kg
Diphenyl Oxide (CAS 101-	84-8)	
Acute		
Oral		0.00 //
LD50	Rat	2.83 g/kg

Components	Species		Test Results
Turpentine (CAS 8006-64-2)			
Acute			
Dermal			0000 // 0444
LD50	Rabbit		> 2000 mg/kg, 24 Hours
Inhalation			
Vapor	Det		40 - // 411
LC50	Rat		13.7 mg/l, 4 Hours
Oral	Det		
LD50	Rat		4.6 ml/kg
Skin corrosion/irritation	Causes skin		
Serious eye damage/eye irritation	Causes serie	ous eye irritation.	
Respiratory or skin sensitizatio	n		
ACGIH sensitization			
Turpentine (CAS 8006-6	4-2)	Dermal sensitization	I
Respiratory sensitization	Not a respira	atory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.		tion.
Germ cell mutagenicity	Suspected o	of causing genetic defects.	
Carcinogenicity	May cause o	cancer.	
ACGIH Carcinogens			
1,1,2-trichloroethylene (C Camphor USP (CAS 76- Turpentine (CAS 8006-6 IARC Monographs. Overall	22-2) 4-2)	A4 Not classifiable a	in carcinogen. Is a human carcinogen. Is a human carcinogen.
1,1,2-trichloroethylene (0 1,2 Butylene Oxide (CAS OSHA Specifically Regulate	6 106-88-7)	1 Carcinogenic to hu 2B Possibly carcino s (29 CFR 1910.1001-1050)	
Not regulated. US. National Toxicology Pro	ogram (NTP) F	Report on Carcinogens	
1,1,2-trichloroethylene (0	CAS 79-01-6)	Reasonably Anticipa	ated to be a Human Carcinogen.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.		
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.		
Specific target organ toxicity - repeated exposure	Not classified.		
Aspiration hazard	Not an aspiration hazard.		
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.		
Further information	Symptoms may be delayed.		
12. Ecological information	n		
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment		
Components		Species	Test Results
1,1,2-trichloroethylene (CAS Aquatic	79-01-6)		
Fish	LC50	Flagfish (Jordanella floridae)	3.1 mg/l, 96 hours
Butanone (CAS 78-93-3) Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	4025 - 6440 mg/l, 48 hours

Components		Species	Test Results
Diphenyl Oxide (CAS 101-84-8	3)		
Aquatic			
Fish	_C50	Sheepshead minnow (Cyprinodon variegatus)	1.8 - 3.2 mg/l, 96 hours
Persistence and degradability	Not inherently	biodegradable.	
Bioaccumulative potential			
Partition coefficient n-octane LPS® HDX (Aerosol) 1,1,2-trichloroethylene Butanone	ol / water (log k	2.4 2.61 0.29	
Diphenyl Oxide	4.21		
Mobility in soil	No data availa	ble.	
Other adverse effects	None known.		
13. Disposal consideration	IS		
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.		
Local disposal regulations	Dispose in accordance with all applicable regulations.		
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the disposal company.		een the user, the producer and the waste
		Reactive material Trichloroethylene	
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).		
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.		
14. Transport information			
DOT			
UN number	UN1950		
UN proper shipping name Transport hazard class(es)	Aerosols, non-flammable, (each not exceeding 1 L capacity)		
Class	2.2		
Subsidiary risk	6.1(PGIII)		
Label(s)	2.2		
Packing group Environmental hazards	Not applicable.		
	No		
Marine pollutant Special precautions for user Packaging exceptions	-	structions, SDS and emergency procedur	es before handling.
Packaging non bulk	None		
Packaging bulk	None		
ΙΑΤΑ			
UN number	UN1950		
UN proper shipping name Transport hazard class(es)	Aerosols, non-	flammable	
Class	2.2		
Subsidiary risk	6.1(PGIII)		
Packing group	Not applicable.		
Environmental hazards	No		
ERG Code	2L Decidentia		
Other information	-	structions, SDS and emergency procedur	es before handling.
Passenger and cargo aircraft	Allowed with re	estrictions.	
Matarial name: PS@ UDV (Aaraaal)			



SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Re	eauthorization Act of 19	86 (SARA)		
Hazard categories	Immediate Hazard - Ye			
	Delayed Hazard - Yes Fire Hazard - No			
	Pressure Hazard - Yes			
	Reactivity Hazard - No			
SARA 302 Extremely hazard Not listed.	lous substance			
SARA 311/312 Hazardous chemical	Yes			
SARA 313 (TRI reporting)				
Chemical name		CAS number	% by wt.	
TRICHLOROETHYLENE		79-01-6	97.25	
Other federal regulations				
Clean Air Act (CAA) Section		lutants (HAPs) List		
1,1,2-trichloroethylene (C				
1,2 Butylene Oxide (CAS Clean Air Act (CAA) Section		ase Prevention (40 CF	FR 68.130)	
Not regulated.			,	
Safe Drinking Water Act (SDWA)	Not regulated.			
	. ,	2, Essential Chemical	s (21 CFR 1310.02(b) and	1310.04(f)(2) and
Butanone (CAS 78-9	93-3)	6714		
-		& 2 Exempt Chemica	al Mixtures (21 CFR 1310.	.12(c))
Butanone (CAS 78-9		35 %WV		
DEA Exempt Chemical		6714		
Butanone (CAS 78-9 FEMA Priority Substand		••••	or Manufacturing Workpl	ace
Butanone (CAS 78-9		Low priority	5 1	
Diphenyl Oxide (CAS Iso amyl acetate (CA		Low priority Low priority		
US state regulations	WARNING: This produ birth defects or other re		known to the State of Calif	fornia to cause cancer and
US - California Proposit	tion 65 - CRT: Listed da	te/Carcinogenic subs	tance	
1,1,2-trichloroethyler US - California Proposit	ne (CAS 79-01-6) tion 65 - CRT: Listed da			
1,1,2-trichloroethyler US - California Proposit	,	Listed: Jan 31 te/Male reproductive		
		Listed: Jan 31 r Consumer Products	, 2014 Regulations (Cal. Code I	Regs, tit. 22, 69502.3,
subd. (a)) 1,1,2-trichloroethyler				
1,2 Butylene Oxide (Butanone (CAS 78-9				
International Inventories				
Country(s) or region	Inventory name			On inventory (yes/no)*
Australia	Australian Inventory of		(AICS)	Yes
Canada	Domestic Substances List (DSL) Y		Yes	
Canada	Non-Domestic Substances List (NDSL)		No	
China	Inventory of Existing Chemical Substances in China (IECSC) Ye		Yes	
Europe	European Inventory of Substances (EINECS)	·		Yes
Europe	European List of Notifie			No
Japan	Inventory of Existing ar		tances (ENCS)	Yes
Korea	Existing Chemicals Lis	t (ECL)		Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	10-18-2016
Version #	01
Disclaimer	ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.