



TECHSPRAY™

Product Information



INDUSTRIAL MAINTENANCE CLEANER

Non-Flammable, Safe Maintenance Cleaner

1635-20S – 20 oz. Aerosol

Introduction

G3 Industrial Maintenance Cleaner is the choice for all types of cleaning of switches, relays, contact pads and other electrical connections. The innovative cleaner removes oils, greases, silicones, dirt and grime.

Contains a patented formula designed specifically as the replacement for degreasers and contact cleaners containing:

- HCFC-141b (1,1-dichloro-1-fluoroethane, CAS #1717-00-6)
- TCE (Trichloroethylene, CAS #79-01-6)
- nPB (n-Propyl Bromide, CAS #106-94-5)
- Perc (Perchloroethylene, CAS #000127-18-4)

EPA, as part of the Montreal Protocol, has been actively phasing out ozone depleting chemicals. Most recently, this has meant the manufacturing ban of HCFC-141b. While there is still a sell-through period, availability is becoming an issue and prices are skyrocketing. G3 Industrial Contact Cleaner is non-ozone depleting.

G3 Industrial Maintenance Cleaner has a good (high) exposure limit, so it is much safer to use than three common industrial cleaners: TCE, nPB, and Perc. Threshold Limit Value (TLV) is the measure of maximum allowable (acute) exposure in PPM (Parts Per Million). Techspray's G3 Industrial Contact Cleaner has a TLV of 200ppm, in contrast to 10ppm for nPB, 25ppm for Perc, and 50ppm for TCE.

Laboratory testing by Techspray has shown vacuum hoods and similar ventilation only reliably controls exposure down to 58 ppm (see Techspray white paper "N-Propyl Bromide Toxicity Concerns", Jimmy Witcher, October 24, 2002). TCE, nPB, and Perc are not recommended for aerosol cleaning.

G3 Industrial Maintenance Cleaner is ideal for maintenance operations looking for an aerosol cleaner that is safe, non-flammable, and cost effective.

Features / Benefits

- Non-Flammable Aerosol*
- Good Exposure Limit – Superior to TCE, nPB, and Perc
- Powerful Cleaner – Spray Blasts Off Soil
- Excellent Degreaser
- Rapid Evaporation
- Low Residue
- Low Odor
- Non-Ozone Depleting

* Meets industry flame extension standards for non-flammable aerosols. However, it does contain some flammable ingredients.

Applications

- Aerosols used in hand-cleaning operations where top priority is efficiency and portability.
- Parts cleaning, maintenance, industrial, utility, transit
- Electrical cleaning of switches, relays, contact pads and other electrical connections

Chemical Components

Component	CAS#
1,2-transdichloroethylene (Trans)	156-60-5
2-Propanol	67-63-0
1,1,1,2-Tetrafluoroethane (HFC-134a)	811-97-2
Carbon dioxide.....	124-38-9

Chemical Properties (MSDS available on request)

- PHYSICAL STATE: Liquid
- ODOR: Faint ethereal odor
- COLOR: Clear
- PERCENT VOLATILE: 100
- FLASHPOINT (METHOD): 36°F (TAG CC)
- EVAPORATION RATE: TBD
- VAPOR PRESSURE: TBD
- DENSITY: 1.18 g/ml
- VOC: 69% (CARB Compliant)

Comparative Test Data

CLEANING EFFICIENCY

Avg of 3 Test Panels, MIL-PRF-29608 4.5.9, % Efficiency

Chemistry	Product	SOIL		
		Silicone Damping Fluid VV-D-1078	Hydraulic Fluid MIL-H-83282	Corrosion Preventative MIL-C-81309
G3*	1635-20S G3 Industrial Maint Cleaner	99%	99%	99%
G3*	1630-16S G3 Maintenance Cleaner	100%	100%	99%
Hydrocarbon	1620-10S Ecoline Maintenance Cleaner	100%	100%	99%
HFE/Vertrel	03205 CRC NT Precision	98%	98%	93%
nPB	03110 CRC Super Degreaser	99%	98%	99%
Perc	03180 CRC Quick Clean	100%	99%	100%
TCE	3070-19S Degreaser NF	99%	98%	100%

*Proprietary blend, U.S. Patent No. 5,902,412

Comparative Handling & Storage Requirements

COMPARATIVE EXPOSURE LIMITS

Chemistry	Product	TLV (Threshold Limit Value)*	Source
G3	1635-20S G3 Industrial Maint Cleaner	200	ACGIH
G3	1630-16S G3 Maintenance Cleaner	200	ACGIH
Hydrocarbon	1620-10S Ecoline Maintenance Cleaner	200	ACGIH
HFE/Vertrel	03205 CRC NT Precision	200	ACGIH
nPB	03110 CRC Super Degreaser	10	ACGIH
Perc	03180 CRC Quick Clean	25	ACGIH
TCE	3070-19S Degreaser NF	50	ACGIH

* Measure of maximum allowable (acute) exposure in PPM (Parts Per Million). Number reflects lowest TLV of chemical components in the blend. Laboratory testing by Techspray has shown vacuum hoods and similar ventilation only reliably controls exposure down to 58 ppm. See Techspray white paper "N-Propyl Bromide Toxicity Concerns", Jimmy Witcher, October 24, 2002.

SHIPPING HAZARD CLASS COMPARISON

Chemistry	Product	Ground Hazard Class
G3	1635-20S G3 Industrial Maint Cleaner	ORM-D
G3	1630-16S G3 Maintenance Cleaner	ORM-D
Hydrocarbon	1620-10S Ecoline Maintenance Cleaner	ORM-D
HFE/Vertrel	03205 CRC NT Precision	ORM-D
nPB	03110 CRC Super Degreaser	ORM-D
Perc	03180 CRC Quick Clean	ORM-D
TCE	3070-19S Degreaser NF	ORM-D

NFPA COMPARISON

Chemistry	Product	Health	Flammability	Reactivity
G3	1635-20S G3 Industrial Maint Cleaner	2	3	0
G3	1630-16S G3 Maintenance Cleaner	2	2	0
Hydrocarbon	1620-10S Ecoline Maintenance Cleaner	1	3	0
HFE/Vertrel	03205 CRC NT Precision	3	1	0
nPB	03110 CRC Super Degreaser	2	1	0
Perc	03180 CRC Quick Clean	2	0	0
TCE	3070-19S Degreaser NF	2	1	1

Plastics Compatibility

Material	Compatibility
ABS	Not Compatible
Nylon	Excellent
Lexan	Not Compatible
HDPE	Excellent
CDPE	Excellent
C. E. Phenolic	Excellent

Material	Compatibility
PMMA	Not Compatible
POM	Excellent
PP	Excellent
PS	Not Compatible
PTFE	Excellent
PVC	Excellent

Environmental Policy

Techspray® is committed to developing products to ensure a safer and cleaner environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

Licensing Restriction

The use of this product for cleaning is subject to U.S. Patent No. 5,902,412 and use is restricted by Techspray.

Packaging and Availability

G3 Industrial Maintenance Cleaner available in the following sizes:

1635-20S	20 oz. Aerosol Can
	12 cans/case

Distributed by:
All-Spec Industries
Wilmington, NC
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