

SAFETY DATA SHEET

1. Identification

Product identifier	QD® Contact Cleaner	
Other means of identification		
Product code	No. 02130 (Item# 1003218)	
Recommended use	Electronic cleaner	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/	Distributor information	
Manufactured or sold by:		
Company name	CRC Industries, Inc.	
Address	885 Louis Dr.	
	Warminster, PA 18974 US	
Telephone		
General Information	215-674-4300	
Technical Assistance	800-521-3168	
Customer Service	800-272-4620	
24-Hour Emergency	800-424-9300 (US)	
(CHEMTREC)	703-527-3887 (International)	
Website	www.crcindustries.com	
2. Hazard(s) identification		
Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Reproductive toxicity (fertility)	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
	Not classified.	
OSHA defined hazards		

Signal word Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. Toxic to aquatic life with long lasting effects.

Danger

Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.
Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/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/attention. If exposed or concerned: Get medical advice/attention. Collect spillage.
Storage	Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-methylpentane		107-83-5	30 - 40
1,1-difluoroethane	HFC-152a	75-37-6	20 - 30
naphtha (petroleum), hydrotreated light		64742-49-0	20 - 30
n-hexane		110-54-3	5 - 10
2,2,4-trimethylpentane		540-84-1	3 - 5
isopropyl alcohol		67-63-0	1 - 3
n-pentane		109-66-0	1 - 3
2,2-dimethylbutane		75-83-2	< 1
2,3-dimethylbutane		79-29-8	< 1
3-methylpentane		96-14-0	< 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

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. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. 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. 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. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. 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. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.
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. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. 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. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage,	Level 3 Aerosol.
including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	
2,2,4-trimethylpentane (CAS 540-84-1)	PEL	2350 mg/m3	
		500 ppm	
sopropyl alcohol (CAS 67-63-0)	PEL	980 mg/m3	
nanhtha (natroloum)	PEL	400 ppm	
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m3	
		100 ppm	
n-hexane (CAS 110-54-3)	PEL	1800 mg/m3	
		500 ppm	
n-pentane (CAS 109-66-0)	PEL	2950 mg/m3	
		1000 ppm	
US. ACGIH Threshold Limit Value		Velue	
Components	Туре	Value	
2,2-dimethylbutane (CAS 75-83-2)	STEL	1000 ppm	
	TWA	500 ppm	
2,3-dimethylbutane (CAS 79-29-8)	STEL	1000 ppm	
	TWA	500 ppm	
2-methylpentane (CAS 107-83-5)	STEL	1000 ppm	
	TWA	500 ppm	
3-methylpentane (CAS 96-14-0)	STEL	1000 ppm	
	TWA	500 ppm	
isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	
n-hexane (CAS 110-54-3)	TWA	50 ppm	
n-pentane (CAS 109-66-0)	TWA	1000 ppm	
US. NIOSH: Pocket Guide to Chen			
Components	Туре	Value	
2,2,4-trimethylpentane (CAS 540-84-1)	Ceiling	1800 mg/m3	
		385 ppm	
	TWA	350 mg/m3	
2.2 dimothylbutana (CAS	Coiling	75 ppm	
2,2-dimethylbutane (CAS 75-83-2)	Ceiling	1800 mg/m3 510 ppm	
	TWA	350 mg/m3	
		100 ppm	
2,3-dimethylbutane (CAS 79-29-8)	Ceiling	1800 mg/m3	
·		510 ppm	
	TWA	350 mg/m3	
		100 ppm	
2-methylpentane (CAS 107-83-5)	Ceiling	1800 mg/m3	
	-	510 ppm	
	Ceiling TWA	-	

Components	to Chemical Hazard Ty	ре	V	/alue
3-methylpentane (CAS	-	iling	1	800 mg/m3
96-14-0)			Б	10 ppm
	TΜ	/^		50 mg/m3
				00 ppm
isopropyl alcohol (CAS	ST	EL		225 mg/m3
67-63-0)			_	
				00 ppm
	TV	/A		80 mg/m3
				00 ppm
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	ТМ	VA	4	00 mg/m3
				00 ppm
n-hexane (CAS 110-54-3)	TΜ	/A		80 mg/m3
				0 ppm
n-pentane (CAS 109-66-0)	Ce	iling		800 mg/m3
				10 ppm
	TV	/A		50 mg/m3
			1	20 ppm
US. Workplace Environme Components	ental Exposure Leve Ty	· ·	v	'alue
1,1-difluoroethane (CAS	TM	/A	2	700 mg/m3
75-37-6)				
			1	mag 000
			1	000 ppm
•			1	000 ppm
logical limit values ACGIH Biological Exposu Components	re Indices Value	Determinant	1 Specimen	000 ppm Sampling Time
		Determinant Acetone		
ACGIH Biological Exposu Components isopropyl alcohol (CAS	Value	Acetone 2,5-Hexanedio n, without	Specimen	Sampling Time
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3)	Value 40 mg/l 0.4 mg/l	Acetone 2,5-Hexanedio n, without hydrolysis	Specimen Urine	Sampling Time
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple	Value 40 mg/l 0.4 mg/l	Acetone 2,5-Hexanedio n, without hydrolysis	Specimen Urine	Sampling Time
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines	Value 40 mg/l 0.4 mg/l ase see the source do	Acetone 2,5-Hexanedio n, without hydrolysis	Specimen Urine	Sampling Time
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin	Value 40 mg/l 0.4 mg/l ase see the source do n designation	Acetone 2,5-Hexanedio n, without hydrolysis ocument.	Specimen Urine Urine	Sampling Time * *
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3)	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be	Specimen Urine	Sampling Time * *
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin desig	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be	Specimen Urine Urine	Sampling Time * * * *
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54 US ACGIH Threshold Lim	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin designed I-3) Good general very should be matched or other engineer	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be nation Can be ntilation (typically 10 a ed to conditions. If ap ing controls to mainta	Specimen Urine Urine e absorbed thro air changes per plicable, use pr ain airborne levo	Sampling Time * * * *
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 oropriate engineering	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin designed I-3) Good general ver should be matched or other engineer exposure limits have ses, such as personal	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be nation Can be contilation (typically 10 a ed to conditions. If ap ing controls to mainta ave not been establis	Specimen Urine Urine e absorbed thro air changes per plicable, use pr ain airborne leve shed, maintain a	sampling Time * * * * bugh the skin. bugh the skin. bough the
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 vidual protection measure Eye/face protection	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin designed I-3) Good general ver should be matched or other engineer exposure limits have ses, such as personal	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be nation Can be tillation (typically 10 a ed to conditions. If ap ing controls to mainta ave not been establis protective equipme	Specimen Urine Urine e absorbed thro air changes per plicable, use pr ain airborne leve shed, maintain a	Sampling Time * * * * bugh the skin. bugh the skin. bough the
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 vidual protection measure	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin designed I-3) Good general ver should be matched or other engineer exposure limits have se, such as personal Wear safety glass	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be nation Can be ntilation (typically 10 a ed to conditions. If ap ing controls to mainta ave not been establis protective equipme ses with side shields	Specimen Urine Urine e absorbed thro air changes per plicable, use pr ain airborne leve shed, maintain a ent (or goggles).	sampling Time * * * * bugh the skin. bugh the skin. bough the
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 vidual protection measure Eye/face protection Skin protection	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin designed I-3) Good general ver should be matched or other engineer exposure limits have se, such as personal Wear safety glass	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be nation Can be ntilation (typically 10 a ed to conditions. If ap ing controls to mainta ave not been establis protective equipme ses with side shields ploves such as: Nitrile	Specimen Urine Urine e absorbed thro air changes per plicable, use pr ain airborne leve shed, maintain a ent (or goggles).	* * * * * * * * * * * * * * * * * * *
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 vidual protection measure Eye/face protection Kin protection Hand protection Other	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin designer I-3) Good general ver should be matched or other engineer exposure limits have es, such as personal Wear safety glass Wear protective g Wear suitable pro	Acetone 2,5-Hexanedio n, without hydrolysis ocument. Can be nation Can be ntilation (typically 10 a ed to conditions. If ap ing controls to mainta ave not been establis protective equipme ses with side shields ploves such as: Nitrile otective clothing.	Specimen Urine Urine e absorbed thro air changes per plicable, use pr ain airborne leve shed, maintain a ent (or goggles). e. Polyvinyl chlo	* * * * * * * * * * * * * * * * * * *
ACGIH Biological Exposu Components isopropyl alcohol (CAS 67-63-0) n-hexane (CAS 110-54-3) * - For sampling details, ple osure guidelines US - California OELs: Skin n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 US ACGIH Threshold Lim shexane (CAS 110-54 US ACGIH Threshold Lim shexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 US ACGIH Threshold Lim shexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54 US ACGIH Threshold Lim shexane (CAS 110-54 US ACGIH Threshold Lim n-hexane (CAS 110-54	Value 40 mg/l 0.4 mg/l ase see the source do n designation I-3) it Values: Skin designer I-3) Good general ver should be matched or other engineer exposure limits have ses, such as personal Wear safety glass Wear protective g Wear suitable pro- If engineering cor NIOSH-approved breathing apparation	Acetone 2,5-Hexanedio n, without hydrolysis bocument. Can be nation Can be nation (typically 10 a ed to conditions. If ap ing controls to mainta ave not been establis protective equipme ses with side shields ploves such as: Nitrile btective clothing. htrols are not feasible cartridge respirator v	Specimen Urine Urine e absorbed thro e absorbed thro air changes per plicable, use pr ain airborne leve shed, maintain a ent (or goggles). e. Polyvinyl chlo e or if exposure with an organic es and for emerge	* * * * * * * * * * * * * * * * * * *

General hygiene
considerationsWhen using, do not eat, drink or 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.

Material name: QD® Contact Cleaner

9. Physical and chemical properties

higherites
Liquid.
Aerosol.
Colorless.
Alcoholic.
Not available.
Not available.
-127.3 °F (-88.5 °C) estimated
123 °F (50.6 °C) estimated
< 0 °F (< -17.8 °C) Tag Closed Cup
Very fast.
Not available.
losive limits
0.9 % estimated
12 % estimated
2089.5 hPa estimated
> 1 (air = 1)
0.72 estimated
Negligible.
Not available.
489.2 °F (254 °C) estimated
Not available.
Not available.
99.2 % estimated
•

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	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. 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	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. 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 ef	fects
Acute toxicity	May be fatal if swallowed and enters airways.

Components	Species	Test Results
2,2,4-trimethylpentane (CAS 540-8	34-1)	
Acute		
Inhalation		
LC50	Rat	118 mg/l, 4 Hours
isopropyl alcohol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	13900 mg/kg
Inhalation		
LC50	Rat	16000 ppm, 4 hours
Oral		
LD50	Rat	4700 mg/kg
naphtha (petroleum), hydrotreated	light (CAS 64742-49-0)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
	Kabbit	> 2000 mg/kg
n-hexane (CAS 110-54-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 1300 mg/kg
Oral		
LD50	Rat	15840 mg/kg
n-pentane (CAS 109-66-0)		
Acute		
Inhalation		
Vapor		
LC50	Rat	364 mg/m3, 4 Hours
Oral		
LD50	Rat	> 2000 mg/kg
* Estimates for product may be	e based on additional component data not shown.	
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye	Causes serious eye irritation.	
irritation		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensit	ization.
Germ cell mutagenicity	No data available to indicate product or any com mutagenic or genotoxic.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	
	Evaluation of Carcinogenicity	
Not listed.		
	d Substances (29 CFR 1910.1001-1050)	
Not regulated.		
US. National Toxicology Pro	gram (NTP) Report on Carcinogens	
Not listed.	Cuonested of demonstrations fortility	
Reproductive toxicity	Suspected of damaging fertility.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
	Not classified.	
Specific target organ toxicity - repeated exposure		

Chronic effects

12. Ecological information

Toxic to aquatic life with long lasting effects.

toxicity	Toxic to a	equatic life with long lasting effects.	
Components		Species	Test Results
2-methylpentane (CAS	107-83-5)		
Aquatic			
Acute			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
isopropyl alcohol (CAS	67-63-0)		
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	7550 - 13299 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	9640 mg/l, 96 hours
naphtha (petroleum), h	ydrotreated light (0	CAS 64742-49-0)	
Aquatic			
Acute			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
n-hexane (CAS 110-54	-3)		
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-oc	tanol / water (log Kow)	
1,1-difluoroethane		0.75
2,2,4-trimethylpentane		5.18
2,2-dimethylbutane		3.82
2,3-dimethylbutane		3.42
2-methylpentane		3.74
3-methylpentane		3.6
isopropyl alcohol		0.05
n-hexane		3.9
n-pentane		3.39
Bioconcentration factor (BCF)	
isopropyl alcohol		3.16
naphtha (petroleum), hydro	treated light	10 - 25000
Mobility in soil	No data available.	
Other adverse effects		onmental effects (e.g. ozone depletion, photochemical ozone creation ruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products	If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT .	
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	· · · · · · · · · · · · · · · · · · ·
Class	2.1
Subsidiary risk	
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None
ΙΑΤΑ	
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
ERG Code	10L
· ·	· Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Allowed with restrictions.
aircraft	Allowed with restrictions
Cargo aircraft only IMDG	Allowed with restrictions.
	UN1950
UN number	
UN proper shipping name Transport hazard class(es)	AEROSOLS, Limited Quantity
Class	2.1
Subsidiary risk	2.1
Packing group	- Not applicable.
Environmental hazards	Not applicable.
Marine pollutant	No.
EmS	F-D, S-U
	Read safety instructions, SDS and emergency procedures before handling.
	read salety instructions, one and emergency procedures before handling.

15. Regulatory information

US federal regulations	Standard, 29 CFR 19	zardous Chemical" as defined by the OSHA Hazard Communication 10.1200. n the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export	t Notification (40 CFR 70	07, Subpt. D)
Not regulated.		
SARA 304 Emergency rele	ase notification	
Not regulated.		
OSHA Specifically Regulat	ed Substances (29 CFR	₹ 1910.1001-1050)
Not regulated.		
US EPCRA (SARA Title III)	Section 313 - Toxic Che	emical: Listed substance
n-hexane (CAS 110-54-	3)	
CERCLA Hazardous Subst	ance List (40 CFR 302.4	4)
2,2,4-trimethylpentane (CAS 540-84-1)	Listed.
n-hexane (CAS 110-54-	3)	Listed.
n-pentane (CAS 109-66	-0)	Listed.
CERCLA Hazardous Subst	ances: Reportable quar	ntity
2,2,4-trimethylpentane (CAS 540-84-1)	1000 LBS
n-hexane (CAS 110-54-	3)	5000 LBS
n-pentane (CAS 109-66	-0)	100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2,2,4-trimethylpentane (CAS 540-84-1) n-hexane (CAS 110-54-3) an Air Act (CAA) Section 112(r) Accide

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

1,1-difluoroethane (CAS 75-37-6)

isopropyl alcohol (CAS 67-63-0)

n-pentane (CAS 109-66-0)

Safe Drinking Water Act Not regulated.

(SDWA)

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Low priority

Food and Drug Administration (FDA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Not regulated.

Section 311/312 Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

2,2,4-trimethylpentane (CAS 540-84-1) isopropyl alcohol (CAS 67-63-0) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-hexane (CAS 110-54-3) n-pentane (CAS 109-66-0)

US. New Jersey Worker and Community Right-to-Know Act

1,1-difluoroethane (CAS 75-37-6) 2,2,4-trimethylpentane (CAS 540-84-1) 2,2-dimethylbutane (CAS 75-83-2) 2,3-dimethylbutane (CAS 79-29-8) 2-methylpentane (CAS 107-83-5) isopropyl alcohol (CAS 67-63-0) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-hexane (CAS 110-54-3) n-pentane (CAS 109-66-0)

US. Massachusetts RTK - Substance List

1,1-difluoroethane (CAS 75-37-6) 2,2,4-trimethylpentane (CAS 540-84-1) 2,2-dimethylbutane (CAS 75-83-2) 2,3-dimethylbutane (CAS 79-29-8) 2-methylpentane (CAS 107-83-5) 3-methylpentane (CAS 96-14-0) isopropyl alcohol (CAS 67-63-0) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-hexane (CAS 110-54-3) n-pentane (CAS 109-66-0)

US. Pennsylvania Worker and Community Right-to-Know Law

2,2,4-trimethylpentane (CAS 540-84-1) 2,2-dimethylbutane (CAS 75-83-2) 2,3-dimethylbutane (CAS 79-29-8) 2-methylpentane (CAS 107-83-5) 3-methylpentane (CAS 96-14-0) isopropyl alcohol (CAS 67-63-0) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-hexane (CAS 110-54-3) n-pentane (CAS 109-66-0)

US. Rhode Island RTK

2,2,4-trimethylpentane (CAS 540-84-1) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-hexane (CAS 110-54-3) n-pentane (CAS 109-66-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	74.3 %
Consumer products (40 CFR 59, Subpt. C)	Not regulated
State	
Consumer products	This product is regulated as an Electronic Cleaner. This product is compliant for use in all 50 states.
VOC content (CA)	74.3 %
VOC content (OTC)	74.3 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
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	09-29-2014
Revision date	08-01-2017
Prepared by	Allison Yoon
Version #	03
Further information	CRC # 957/1002975
HMIS® ratings	Health: 1* Flammability: 4 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 1 Flammability: 4 Instability: 0
NFPA ratings	

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Revision Information	This document has undergone significant changes and should be reviewed in its entirety.