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Revision Number 2

1. IDENTIFICATION

Product identification

Product identifier Drummond™ 3-2-1 Electronic Cleaner
Other means of identification DA7254
Recommended use Electronic maintenance
Restrictions on use For industrial use only

Supplier

Corporate Headquarters:
Drummond™, A Lawson Brand
Lawson Products, Inc.
8770 W. Bryn Mawr Ave., Suite 900
Chicago, IL 60631
(866) 837-9908

Canadian Distribution Center:
Lawson Canada
7315 Rapistan Court
Mississauga, ON L5N 5Z4
(800) 323-5922

24 Hour Emergency Phone Number (888) 426-4851 (Prosar)

Website www.lawsonproducts.com

2. HAZARD(S) IDENTIFICATION

Hazard Classification This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), WHMIS 2015 and GHS Regulations.

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Flammable aerosols	Category 1
Gases under pressure	Compressed gas

Symbol



Signal word WARNING

Hazard statements
H315 + H320 - Causes skin and eye irritation
H222 - Extremely flammable aerosol
H280 - Contains gas under pressure; may explode if heated

Precautionary statements

General	P101 - If medical advice is needed, have product container or label at hand P102 - Keep out of reach of children P103 - Read label before use.
Prevention	P280 - Wear eye protection/ face protection P280 - Wear protective gloves P264 - Wash hands thoroughly after handling
Response	
Eyes	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313 - If eye irritation persists: Get medical advice/attention
Skin	P362 - Take off contaminated clothing and wash before reuse P302 + P352 - IF ON SKIN: Wash with plenty of soap and water P332 + P313 - If skin irritation occurs: Get medical advice/attention
Storage	P410 - Protect from sunlight P412 - Do not expose to temperatures exceeding 50 °C/122 °F P403 - Store in a well-ventilated place
Disposal	Not applicable
Hazard(s) Not Otherwise Classified (HNOC)	None known.
Physical Hazards Not Otherwise Classified (PHNOC)	None known.
Unknown acute toxicity	2%.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Composition Mixture.

Chemical name	CAS-No	Weight %
1,2-trans-Dichloroethylene	156-60-5	50-61
Carbon Dioxide	124-38-9	<1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 environment and hence require reporting in this section

4. FIRST-AID MEASURES**Necessary first-aid measures****General Information**

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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 maybe delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 without medical advice. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. 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.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and footwear. Continue to rinse for at least 10 minutes. Get medical attention. Consult a physician if necessary. Wash clothing before reuse. Clean shoes thoroughly before reuse.
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.
Most important symptoms (acute)	Causes serious eye irritation. Causes skin irritation. Irritating to mouth, throat and stomach. Harmful if swallowed.
Most important symptoms (over-exposure)	Adverse symptoms may include the following: eye pain, redness, and watering. Skin irritation. Redness. Respiratory tract irritation. Coughing. Ingestion may cause nausea or vomiting, diarrhea.
Indication of any immediate medical attention and special treatment needed	In case of inhalation of decomposition products in a fire, symptoms maybe delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards	In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed. Hazardous Thermal Decomposition Products: Carbon dioxide. carbonyl halides. Carbon monoxide. Halogenated compounds.
Special protective equipment 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 you can do it without risk. Use water spray to keep fire-exposed containers cool. Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering the area. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in
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Section 8 on suitable and unsuitable materials. See also the information for 'non-emergency personnel'. Avoid dispersal of spilled 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).

Methods and materials for containment 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. Approach release from upwind. Prevent entry in 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 spilled product. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for safe handling

Put on appropriate personal protective equipment (see section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin, and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Empty containers retain product residue and can be hazardous. 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.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. 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. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	OSHA PEL (TWA)	California - PELs	ACGIH OEL (TWA)	NIOSH - TWA
1,2-trans-Dichloroethylene	200 ppm TWA 790 mg/m ³ TWA	200 ppm PEL; 790 mg/m ³ PEL	200 ppm TWA	200 ppm TWA 790 mg/m ³ TWA
Carbon Dioxide	5000 ppm TWA 9000 mg/m ³ TWA	5000 ppm PEL; 9000 mg/m ³ PEL	5000 ppm TWA	5000 ppm TWA 9000 mg/m ³ TWA

Appropriate engineering controls

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. 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.

Individual protection measures, such as personal protective equipment

Eye 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 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 and body 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 the 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. 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. 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

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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.

Canadian Province Occupational Exposure Limits

Chemical name	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK
1,2-trans-Dichloroethylene	200 ppm TWA 793 mg/m ³ TWA	200 ppm TWA	200 ppm TWA	200 ppm TWA 793 mg/m ³ TWA	200 ppm TWA 200 ppm TWA	200 ppm TWA	200 ppm TWA	200 ppm TWA 200 ppm TWA	200 ppm TWA 793 mg/m ³ TWA TWAEV	200 ppm TWA
Carbon Dioxide	5000 ppm TWA 9000 mg/m ³ TWA	5000 ppm TWA	5000 ppm TWA	5000 ppm TWA 9000 mg/m ³ TWA	5000 ppm TWA	5000 ppm TWA	5000 ppm TWA	5000 ppm TWA	5000 ppm TWA 9000 mg/m ³ TWA TWAEV	5000 ppm TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid Aerosol
Odor	Ethereal
Odor threshold	Not available
pH	Not available
Melting point/range °C	Not available
Melting point/range °F	Not available
Boiling point/range °C	37 °C
Boiling point/range °F	98.6 °F
Flash point °C / °F	Not applicable
Evaporation rate	Not available
Flammability (Solid, Gas)	Not available
Lower explosion limit	9.6 %

Upper explosion limit	12.9 %
Vapor pressure	24.1 kPa (180.43mm Hg) [room temperature]
Vapor density	>1 (Air = 1)
Relative density	1.249
Solubility	Not available
Partition coefficient (n-octanol/water)	Not available
Autoignition temperature °C	Not available
Autoignition temperature °F	Not available
Decomposition temperature °C	Not available
Decomposition temperature °F	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	Stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	No specific data.
Incompatible materials	No specific data.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	Not available.
Symptoms	Causes serious eye irritation. Causes skin irritation. Harmful if swallowed. Irritating to mouth, throat and stomach. Adverse symptoms may include the following: eye pain, redness, and watering. Skin irritation. redness. Respiratory tract irritation. Coughing. Ingestion may cause nausea or vomiting. diarrhea.
Delayed and immediate effects as well as chronic effects from short and long-term exposure	No known significant effects or critical hazards.

Numerical measures of toxicity

Chemical name	Inhalation LC50:	Dermal LD50:	Oral LD50:
1,2-trans-Dichloroethylene	24100 ppm Rat 21723 ppm Mouse	= 1235 mg/kg Rat = 770 mg/kg Rat >5000 mg/kg Rabbit	1235 mg/kg Rat 770 mg/kg Rat > 5000 mg/kg Rabbit

Chemical name	Inhalation LC50:	Dermal LD50:	Oral LD50:
Carbon Dioxide	-	-	-

ATEmix (dermal) Not available

ATEmix (oral) 2058.3 mg/kg

ATEmix (inhalation-gas) Not available

ATEmix (inhalation-vapor) Not available

ATEmix (inhalation-dust/mist) Not available

Carcinogenicity

Chemical name	ACGIH OEL - Carcinogens	IARC	OSHA Carcinogens	NTP
1,2-trans-Dichloroethylene	-	-	-	-
Carbon Dioxide	-	-	-	-

Canadian Province carcinogenicity limits

Chemical name	Alberta - Carcinogen	British Columbia - Carcinogen	Manitoba - Carcinogen	New Brunswick - Carcinogen	Nova Scotia - Carcinogen	Quebec - Carcinogen
1,2-trans-Dichloroethylene	-	-	-	-	-	-
Carbon Dioxide	-	-	-	-	-	-

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish LC50
1,2-trans-Dichloroethylene	-	= 135mg/L Lepomis macrochirus 96h
Carbon Dioxide	-	-

Persistence and degradability Not available.

Bioaccumulation Not available

Chemical name	CAS-No	Partition coefficient (log Kow)	Bioconcentration factor (BCF)
1,2-trans-Dichloroethylene 156-60-5	156-60-5	2.06 (ECHA_API)	-
Carbon Dioxide 124-38-9	124-38-9	-	no bioaccumulation

Mobility in soil Not available.

Other adverse effects No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Disposal information The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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.

Contaminated packaging This material and its containers must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORTATION INFORMATION

Shipping Descriptions

DOT

ID-No UN1950
Proper shipping name Aerosols
Hazard Class(es) 2.2
Special Provisions LTD QTY

TDG

ID-No UN1950
Proper shipping name Aerosols
Hazard Class(es) 2.2
Special Provisions LTD QTY

IATA

ID-No UN1950
Proper shipping name Aerosols, flammable
Hazard Class(es) 2.2
Special Provisions LTD QTY

IMDG/IMO

ID-No UN1950
Proper shipping name Aerosols
Hazard Class(es) 2.2
EmS No F-D, S-E
Special Provisions LTD QTY

Marine Pollutants

Chemical name	CAS-No	USDOT Marine Pollutant	Canada TDG Marine Pollutant	IMDG Marine Pollutant
1,2-trans-Dichloroethylene	156-60-5	-	-	-
Carbon Dioxide	124-38-9	-	-	-

Special Precautions

Multi-modal shipping descriptions are provided for informational purposes and do not consider container size. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

15. REGULATORY INFORMATION

State regulations

U.S. state Right-to-Know regulations

Chemical name	CAS-No	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK
1,2-trans-Dichloroethylene	156-60-5	X	X	X
Carbon Dioxide	124-38-9	X	X	X

California Prop. 65

Chemical name	CAS-No	California Prop. 65
1,2-trans-Dichloroethylene	156-60-5	-
Carbon Dioxide	124-38-9	-

U.S. Federal Regulations

US EPA SARA 313

Chemical name	CAS-No	CERCLA/SARA Hazardous Substances RQ	SARA 313 - Threshold Values
1,2-trans-Dichloroethylene	156-60-5	1000 lb 454 kg 1 lb 0.454 kg	1.0 %
Carbon Dioxide	124-38-9	-	-

US EPA SARA 311/312 hazardous categorization Not applicable

TSCA and Canadian Inventories

Chemical name	Inventory - United States - Section 8(b) Inventory (TSCA)	U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification	DSL	NDSL
1,2-trans-Dichloroethylene	X	X	X	X
Carbon Dioxide	X	-	X	-

Legend X - Listed

16. OTHER INFORMATION

NFPA

Health	2
Flammability	0
Instability	0

HMIS

Health	2 *
Flammability	0
Physical hazards	0
Personal protection	To be determined by customer.

Notice: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

Prepared by Regulatory Affairs

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Revision note

Key to abbreviations

ACGIH (American Conference of Governmental Industrial Hygienists)
ATE (Average Toxicity Estimate)
DSL/NDSL (Domestic Substance List/Non-Domestic Substance List)
HMIS (Hazardous Materials Identification System)
IARC (International Agency for Research on Cancer)
IATA (International Air Transport Association)
IMDG/IMO (International Maritime Dangerous Goods/International Maritime Organization)
NFPA (National Fire Protection Association)
NTP (National Toxicology Program)
OEL (Occupational Exposure Level)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEL (Permissible Exposure Limit)
TSCA (Toxic Substance Control Act)
USEPA (United States Environmental Protection Agency)

Disclaimer

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

End of Safety Data Sheet