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1 Identification

· Product identifier

· Trade name: <u>DWD2 Clean Air Evaporator Core Cleaner</u>

· Product size: 8oz and 12oz

· Article number: No other identifiers

· Recommended use and restriction on use

· Recommended use: Cleaning agent/ Cleaner

· Restrictions on use: See Sections 8 and 10 for further information.

· Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

The DWD2 System, Inc. 10725 Ellis Ave. Unit A Fountain Valley, CA 92708 USA 714-432-0007

· Emergency telephone number:

ChemTel Inc.

(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 GHS04 Flame, Gas cylinder

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.

Additional information:

There are no other hazards not otherwise classified that have been identified. 0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS02 GHS04

- · Signal word Danger
- · Hazard statements

H222 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

Precautionary statements

P210 Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.

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P251 Pressurized container: Do not pierce or burn, even after use.

P211 Do not spray on an open flame or other ignition source.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 122 °F (50 °C).

P403 Store in a well-ventilated place.

· Hazard description:

· WHMIS-symbols:

As of 11 February 2015, the current WHMIS system is being replaced by the GHS system. This is the classification under the older system.

A - Compressed gas

B5 - Flammable aerosol



- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0Fire = 4

Reactivity = 3

· HMIS-ratings (scale 0 - 4)



O Health = 0

4 Fire = 4

REACTIVITY 3 Reactivity = 3

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:			
75-28-5	isobutane	Flam. Gas 1, H220 Press. Gas, H280	2.5-10%
67-63-0	propan-2-ol	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%
74-98-6	propane	Flam. Gas 1, H220 Press. Gas, H280	2.5-10%

· Additional information:

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

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4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation:

Supply fresh air; consult doctor in case of complaints.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After skin contact:

Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

In cases of frostbite, rinse with plenty of water. Do not remove clothing.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Unlikely route of exposure.

Do not induce vomiting; immediately call for medical help.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

Frostbite

Breathing difficulty

Dizziness

- · Danger No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

If necessary oxygen respiration treatment.

Treat frost-bitten areas appropriately.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: None.
- · Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

Danger of receptacles bursting because of high vapor pressure if heated.

- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Eliminate all ignition sources if safe to do so.

Cool endangered receptacles with water spray.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

If aerosols are bursting, stay clear until safe. Aerosol containers can be projectiles when bursting.

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6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Protect from heat.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Use only in well ventilated areas.

Pressurized container: Do not pierce or burn, even after use.

Information about protection against explosions and fires:

Protect from heat.

Extremely flammable aerosol.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Provide ventilation for receptacles.

Avoid storage near extreme heat, ignition sources or open flame.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Keep containers tightly sealed.

Protect from heat and direct sunlight.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

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· Control parameters

· Components with limit values that require monitoring at the workplace:

75-28-5 isobutane

TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

EV (Canada) Long-term value: 800 ppm LMPE (Mexico) Long-term value: 1000 ppm

67-63-0 propan-2-ol

PEL (USA) Long-term value: 980 mg/m³, 400 ppm
REL (USA) Short-term value: 1225 mg/m³, 500 ppm

Long-term value: 980 mg/m³, 400 ppm

TLV (USA) Short-term value: 984 mg/m³, 400 ppm

Long-term value: 492 mg/m³, 200 ppm

BEI

EL (Canada) Short-term value: 400 ppm

Long-term value: 200 ppm

EV (Canada) Short-term value: 400 ppm

Long-term value: 200 ppm

LMPE (Mexico) Short-term value: 400 ppm

Long-term value: 200 ppm

A4, IBE

74-98-6 propane

PEL (USA) Long-term value: 1800 mg/m³, 1000 ppm REL (USA) Long-term value: 1800 mg/m³, 1000 ppm

TLV (USA) refer to Appendix F

EL (Canada) Long-term value: 1000 ppm EV (Canada) Long-term value: 1.000 ppm LMPE (Mexico) Long-term value: 1000 ppm

· Ingredients with biological limit values:

67-63-0 propan-2-ol

BEI (USA) 40 mg/L

Medium: urine

Time: end of shift at end of workweek

Parameter: Acetone (background, nonspecific)

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

• Engineering controls: No further relevant information available.

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· Breathing equipment:

Not required under normal conditions of use.

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when high concentrations are present.

For spills, respiratory protection may be advisable.

· Protection of hands:

Gloves not required under normal conditions of use.

Wear protective gloves to handle contents of damaged or leaking units.

· Eve protection:



Safety glasses

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

No further relevant information available.

· Risk management measures

See Section 7 for additional information. No further relevant information available.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information

· Appearance:

Form:
Color:
Odor:
Odor threshold:
Aerosol
Clear
Alcohol-like
Not determined.

pH-value:
Not determined.

· Change in condition

Melting point/Melting range:Not applicable, as aerosol.
Not applicable, as aerosol.

• Flash point: Extremely flammable aerosol.

Not applicable, as aerosol.

Flammability (solid, gaseous): Not applicable.
 Auto-ignition temperature: Not determined.
 Decomposition temperature: Not determined.

· **Auto igniting:** Product is not self-igniting.

· Danger of explosion: Not determined.

· Explosion limits:

Lower: 1.2 Vol % **Upper:** 18.6 Vol %

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· Oxidizing properties Non-oxidizing.

· Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)

· Density: Not determined. · Relative density Not determined. · Vapour density Not determined. · Evaporation rate Not applicable.

· Solubility in / Miscibility with

Not miscible or difficult to mix. Water:

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. Kinematic: Not determined.

· Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

Pressurized container: Do not pierce or burn, even after use.

· Possibility of hazardous reactions

Danger of receptacles bursting because of high vapor pressure if heated.

Extremely flammable aerosol.

Used empty containers may contain product gases which form explosive mixtures with air.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.

Reacts with strong oxidizing agents.

Conditions to avoid

Keep ignition sources away - Do not smoke. Keep away from heat and direct sunlight.

- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification: None.
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Based on available data, the classification criteria are not met.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

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· Carcinogenic categories

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Probable Routes of Exposure

Inhalation.

Eve contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

In addition to local irritant manifestations, there is a narcotic effect when inhaling high concentrations, with the danger of central respiratory arrest.

- · Repeated Dose Toxicity: No further relevant information available.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: The product contains materials that are harmful to the environment.
- · Persistence and degradability Moderately/partly eliminable from water.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Avoid transfer into the environment.

· Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Contact waste processors for recycling information.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

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- · Uncleaned packagings:
- · Recommendation:

Disposal must be made according to official regulations.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- · UN-Number
- · DOT, ADR, IMDG, IATA

UN1950

· UN proper shipping name



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).

DOT, IATA
 ADR
 IMDG
 Aerosols, flammable
 1950 AEROSOLS
 AEROSOLS

- · Transport hazard class(es)
- · DOT



• Class 2.1 • Label 2.1

· ADR



· Class 2 5F Gases

· Label 2.1

· IMDG, IATA



ClassLabel2.1

· Packing group

· DOT, ADR, IMDG, IATA Not Regulated

· Environmental hazards:

· Marine pollutant:

· Special precautions for user Warning: Gases

· Danger code (Kemler):

• EMS Number: F-D,S-U

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· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· DOT

• Quantity limitations On passenger aircraft/rail: 75 kg

On cargo aircraft only: 150 kg

· ADR

· Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

· IMDG

· Limited quantities (LQ) 1L

• Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

· UN "Model Regulation": UN1950, Aerosols, 2.1

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

67-63-0 propan-2-ol

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

67-63-0 propan-2-ol

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· TLV (Threshold Limit Value established by ACGIH)

67-63-0 propan-2-ol

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· State Right to Know Listings

None of the ingredients is listed.

- Canadian substance listings:
- · Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

67-63-0 propan-2-ol

· Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Date of preparation / last revision 06/17/2015 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· Sources

SDS Prepared by:

ChemTel Inc.

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Tampa, Florida USA 33602-2902

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