Safety Data Sheet dated 18/1/2018, version 2

SECTION 1: Identification of the substance/mixture

1.1. Product identifier

Mixture identification:

Trade name: REFRESHING SPRAY 400Ml
CCSYST400L

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use:

product for air conditioning systems

Uses advised against:

do not use on humans and animals

1.3. Emergency telephone number

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

 Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Danger

Hazard statements:

H222+H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

Precautionary statements:

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.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
vPvB Substances: None - PBT Substances: None
Other Hazards:
section 10.3

SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.
3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 50% - < 60%	GPL	CAS: 68476-40-4 EC: 270-681-9 REACH No.: 01-2119486557-22-XXXX	2.5/C Compr. Gas H280 2.2/1 Flam. Gas 1 H220 DECLK (CLP)*
>= 40% - < 50%	ethanol; ethyl alcohol	Index number: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6	2.6/2 Flam. Liq. 2 H225
>= 1% - < 3%	propan-2-ol; isopropyl alcohol; isopropanol	Index number: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7	2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H336
>= 0.25% - < 0.5%	butanone; ethyl methyl ketone	Index number: 606-002-00-3 CAS: 78-93-3 EC: 201-159-0	2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H336 EUH066
>= 0.25% - < 0.5%	Alcohols C12-14, ethoxylated (> 2-5EO)	CAS: 68439-50-9 EC: 931-014-3	3.3/1 Eye Dam. 1 H318 4.1/A1 Aquatic Acute 1 H400
>= 0.1% - < 0.25%	(carboxymethyl) dimethyl-3 - [(1-oxododecyl) amino] propylammonium hydroxide	CAS: 4292-10-8 EC: 224-292-6	3.2/2 Skin Irrit. 2 H315 3.3/2 Eye Irrit. 2 H319
>= 0.1% - < 0.25%	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Index number: 270-325-2 CAS: 68424-85-1	2.16/1 Met. Corr. 1 H290 3.1/4/Oral Acute Tox. 4 H302 3.2/1A Skin Corr. 1A H314 4.1/A1 Aquatic Acute 1 H400

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:
Wash with plenty of water and soap.
In case of eyes contact:
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
In case of Ingestion:
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.
4.2. Most important symptoms and effects, both acute and delayed
Section 11
4.3. Indication of any immediate medical attention and special treatment needed
Treatment:
Follow the doctor's instructions

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
CO2 or Dry chemical fire extinguisher.
Extinguishing media which must not be used for safety reasons:
Water jets.
5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
5.3. Advice for firefighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.
6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
6.3. Methods and material for containment and cleaning up
Wash with plenty of water.
6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

store in a cool, well ventilated place, away from heat, flames, sparks or other sources of ignition
keep only in the original container away from sunlight neighborhoods
avoid contact with skin and eyes, inhalation of vapours/mists/dusts.
do not use empty containers before they are cleaned.
contaminated clothing must be replaced before entering the dining areas.
at work do not eat or drink.
do not smoke
avoid the accumulation of electrostatic charges.
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.

7.3. Specific end use(s)

hygienising

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethanol; ethyl alcohol - CAS: 64-17-5

ACGIH - STEL: 1000 ppm - Notes: A3 - URT irr

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

butanone; ethyl methyl ketone - CAS: 78-93-3

EU - TWA(8h): 600 mg/m3, 200 ppm - STEL: 900 mg/m3, 300 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - TWA(8h): 200 ppm - STEL: 300 ppm - Notes: BEI - URT irr, CNS and PNS impair

DNEL Exposure Limit Values

butanone; ethyl methyl ketone - CAS: 78-93-3

Worker Professional: 1161 mg/kg/d - Consumer: 412 mg/kg/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 600 mg/l - Consumer: 106 mg/l - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 31 mg/kg/d - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

butanone; ethyl methyl ketone - CAS: 78-93-3

Target: Freshwater sediments - Value: 284.74 mg/kg
Target: Marine water sediments - Value: 284.74 mg/kg
Target: Soil (agricultural) - Value: 22.5 mg/kg

Target: Fresh Water - Value: 55.8 mg/l
Target: Marine water - Value: 55.8 mg/l

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

Do not expose to temperatures exceeding 50° c.

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Spray can	--	--
Odour:	parfumed	--	--
Odour threshold:	Not Relevant	--	--
pH:	Not Relevant	--	--
Melting point / freezing point:	<-20°C liquid phase	--	--
Initial boiling point and boiling range:	>70°C liquid phase	--	--
Flash point:	< 0 ° C aerosol	--	--
Evaporation rate:	Not Relevant	--	--
Solid/gas flammability:	Not Relevant	--	--
Upper/lower flammability or explosive limits:	Not Relevant	--	--
Vapour pressure:	5 bar +/- 1	--	--
Vapour density:	>2	--	--
Relative density:	0.800 kg/l +/- 0.03	--	--
Solubility in water:	complete	--	--
Solubility in oil:	complete	--	--
Partition coefficient (n-octanol/water):	Not Relevant	--	--
Auto-ignition temperature:	400°C	--	--
Decomposition temperature:	Not Relevant	--	--
Viscosity:	Not Relevant	--	--
Explosive properties:	section 10.3	--	--
Oxidizing properties:	Not Relevant	--	--

9.2. Other information

Properties	Value	Method:	Notes:
kinematic viscosity:	kv > 2,05 mm2/s (a 40°C)	--	--
Miscibility:	complete in water	--	--
Fat Solubility:	complete	--	--
Conductivity:	Not Relevant	--	--
Substance Groups relevant properties	Not Relevant	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
Stable under normal conditions
10.3. Possibility of hazardous reactions
may form explosive vapor / air mixtures in places not well ventilated
10.4. Conditions to avoid
keep away from heat, sources of ignition
avoid the accumulation of electrostatic charges.
10.5. Incompatible materials
oxidizing agents
10.6. Hazardous decomposition products
the product is flammable, following combustion can lead to the formation of dangerous decomposition products
by thermal decomposition can rid COx

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological information of the product:
N.A.
Toxicological information of the main substances found in the product:
GPL - CAS: 68476-40-4
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat > 658 mg/l
propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5840 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
butanone; ethyl methyl ketone - CAS: 78-93-3
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
ethanol; ethyl alcohol - CAS: 64-17-5
LD50 (RABBIT) ORAL: 6300 MG/KG
LD50 (RAT) ORAL SINGLE DOSE: 7060 MG/KG

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

a) acute toxicity;
b) skin corrosion/irritation;
c) serious eye damage/irritation;
d) respiratory or skin sensitisation;
e) germ cell mutagenicity;
f) carcinogenicity;
g) reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

GPL - CAS: 68476-40-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish Negative 19 mg/l - Duration h: 96
Endpoint: LC50 - Species: Daphnia Negative 14.2 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae Negative 7.7 mg/l - Duration h: 96

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72
Endpoint: EC50 - Species: Fish > 100 mg/l - Duration h: 48

butanone; ethyl methyl ketone - CAS: 78-93-3

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 308 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae = 2029 mg/l - Duration h: 96
Endpoint: LC50 - Species: Fish = 2993 mg/l - Duration h: 96

12.2. Persistence and degradability

None

butanone; ethyl methyl ketone - CAS: 78-93-3

Biodegradability: Not persistent and Biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: N.A.

12.3. Bioaccumulative potential

butanone; ethyl methyl ketone - CAS: 78-93-3

Bioaccumulation: Not bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

12.4. Mobility in soil

butanone; ethyl methyl ketone - CAS: 78-93-3

Mobility in soil: Mobile - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

contaminated packaging should be sent for recovery or disposal in compliance with national regulations on waste management
reuse if possible. Product residues are to be considered hazardous waste. disposal must be entrusted to authorised waste management, in compliance with national and, where appropriate, local.

SECTION 14: Transport information

14.1. UN number

ADR-UN number:	1950
IATA-Un number:	1950
IMDG-Un number:	1950

14.2. UN proper shipping name

14.3. Transport hazard class(es)

ADR-Class:	2.5°F CAP. 2.2.2.1.6 UN1950
IATA-Class:	2.1
IMDG-Class:	2 Aerosols UN 1950

14.4. Packing group

14.5. Environmental hazards

Marine pollutant:	No

14.6. Special precautions for user

IMDG-Page:	2102

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
None

Where applicable, refer to the following regulatory provisions :
Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1
Product belongs to category: P3a

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Text of phrases referred to under heading 3:

H280 Contains gas under pressure; may explode if heated.
H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
EUH066 Repeated exposure may cause skin dryness or cracking.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H315 Causes skin irritation.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Flam. Gas 1	2.2/1	Flammable gas, Category 1
Aerosols 1	2.3/1	Aerosol, Category 1
Compr. Gas	2.5/C	Compressed gas
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification
SECTION 3: Composition/information on ingredients
SECTION 7: Handling and storage
SECTION 9: Physical and chemical properties

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222+H229	On basis of test data

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.