SAFETY DATA SHEET

Cleaner Spray S

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : Cleaner Spray S
UFI : G2M1-805G-C00Q-GFQA
Product code : 112025
Color : Colorless.
Product type : Aerosol.

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

Identified uses
Aerosol product-Cleaning agent

Uses advised against	Reason
Not applicable.	

1.3 Details of the supplier of the safety data sheet

WEICON GmbH & Co. KG
Königsberger Str. 25,
48157 Münster, Germany
phone: +49 251 93220,
Fax: +49 251 9322244
email: info@weicon.de,
URL: www.weicon.de

e-mail address of person responsible for this SDS : msds@weicon.de

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : EMERGENCY CONTACT – UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English)
TRANSPORT EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aerosol 1, H222, H229
Skin Irrit. 2, H315
Eye Irrit. 2, H319
STOT SE 3, H336
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : H222, H229 - Extremely flammable aerosol. Pressurized container: may burst if heated.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

General : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.

Prevention : 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.
P261 - Avoid breathing dust or mist.
P264 - Wash thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves. Wear eye or face protection.

Response : P391 - Collect spillage.
P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
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 or attention.

Storage : P405 - Store locked up.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal : P501 - Dispose of waste according to applicable legislation.

Hazardous ingredients : Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic

Supplemental label elements : Contains Orange, sweet, ext.. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : Aspiration hazard - Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	EC: 927-510-4 CAS: 64742-49-0	≥50 - ≤75	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	-	[1]
acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	≥10 - ≤19	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
Isopropyl alcohol	REACH #: 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≥3 - ≤5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	-	[1] [2]
ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥3 - ≤5	Flam. Liq. 2, H225	-	[2]
butane	REACH #: 01-2119474691-32 EC: 203-448-7 CAS: 106-97-8 Index: 601-004-00-0	≥3 - ≤5	Flam. Gas 1A, H220 Press. Gas (Comp.), H280	-	[2]
Carbon dioxide, gas	REACH #: Annex IV EC: 204-696-9 CAS: 124-38-9	≥1 - ≤3	Press. Gas (Comp.), H280	-	[2]
Isobutane	REACH #: 01-2119485395-27 EC: 200-857-2 CAS: 75-28-5 Index: 601-004-00-0	≥1 - ≤3	Flam. Gas 1A, H220 Press. Gas (Comp.), H280	-	[2]
Orange, sweet, ext.	REACH #: 01-2119493353-35 EC: 232-433-8 CAS: 8028-48-6	≥0.3 - <1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	-	[1]
butanone	REACH #: 01-2119457290-43 EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3	≥0.2 - ≤0.26	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 **See Section 16 for the full text of the H statements declared above.**	-	[1] [2]

SECTION 3: Composition/information on ingredients

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 the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

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.

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.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. 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 unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. 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.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

SECTION 4: First aid measures

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

Special protective actions 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 this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

SECTION 6: Accidental release measures

6.3 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. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into 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.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : 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 gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : 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.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P3a	150 tonne	500 tonne
E2	200 tonne	500 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
acetone	**TRGS 900 OEL (Germany, 4/2023).** TWA: 1200 mg/m³ 8 hours. PEAK: 2400 mg/m³ 15 minutes. TWA: 500 ppm 8 hours. PEAK: 1000 ppm 15 minutes. **DFG MAC-values list (Germany, 7/2022).** TWA: 500 ppm 8 hours. PEAK: 1000 ppm, 4 times per shift, 15 minutes. TWA: 1200 mg/m³ 8 hours. PEAK: 2400 mg/m³, 4 times per shift, 15 minutes.
Isopropyl alcohol	**TRGS 900 OEL (Germany, 4/2023).** TWA: 500 mg/m³ 8 hours. PEAK: 1000 mg/m³ 15 minutes. TWA: 200 ppm 8 hours. PEAK: 400 ppm 15 minutes. **DFG MAC-values list (Germany, 7/2022).** TWA: 200 ppm 8 hours. PEAK: 400 ppm, 4 times per shift, 15 minutes. TWA: 500 mg/m³ 8 hours. PEAK: 1000 mg/m³, 4 times per shift, 15 minutes.
ethanol	**TRGS 900 OEL (Germany, 4/2023).** TWA: 380 mg/m³ 8 hours. PEAK: 1520 mg/m³ 15 minutes. TWA: 200 ppm 8 hours. PEAK: 800 ppm 15 minutes. **DFG MAC-values list (Germany, 7/2022).** TWA: 200 ppm 8 hours. PEAK: 800 ppm, 4 times per shift, 15 minutes. TWA: 380 mg/m³ 8 hours. PEAK: 1520 mg/m³, 4 times per shift, 15 minutes.
butane	**TRGS 900 OEL (Germany, 7/2021).** TWA: 2400 mg/m³ 8 hours. PEAK: 9600 mg/m³ 15 minutes. TWA: 1000 ppm 8 hours. PEAK: 4000 ppm 15 minutes. **DFG MAC-values list (Germany, 10/2021). [Butane]** TWA: 1000 ppm 8 hours. PEAK: 4000 ppm, 4 times per shift, 15 minutes. TWA: 2400 mg/m³ 8 hours. PEAK: 9600 mg/m³, 4 times per shift, 15 minutes.
Carbon dioxide, gas	**TRGS 900 OEL (Germany, 4/2023).** TWA: 9100 mg/m³ 8 hours. PEAK: 18200 mg/m³ 15 minutes. TWA: 5000 ppm 8 hours. PEAK: 10000 ppm 15 minutes. **DFG MAC-values list (Germany, 7/2022).** TWA: 5000 ppm 8 hours. PEAK: 10000 ppm, 4 times per shift, 15 minutes. TWA: 9100 mg/m³ 8 hours. PEAK: 18200 mg/m³, 4 times per shift, 15 minutes.

SECTION 8: Exposure controls/personal protection

Isobutane	**TRGS 900 OEL (Germany, 7/2021).** TWA: 2400 mg/m³ 8 hours. PEAK: 9600 mg/m³ 15 minutes. TWA: 1000 ppm 8 hours. PEAK: 4000 ppm 15 minutes. **DFG MAC-values list (Germany, 10/2021). [Butane]** TWA: 1000 ppm 8 hours. PEAK: 4000 ppm, 4 times per shift, 15 minutes. TWA: 2400 mg/m³ 8 hours. PEAK: 9600 mg/m³, 4 times per shift, 15 minutes.
butanone	**TRGS 900 OEL (Germany, 4/2023). Absorbed through skin.** TWA: 600 mg/m³ 8 hours. PEAK: 600 mg/m³ 15 minutes. TWA: 200 ppm 8 hours. PEAK: 200 ppm 15 minutes. **DFG MAC-values list (Germany, 7/2022). Absorbed through skin.** TWA: 200 ppm 8 hours. PEAK: 200 ppm, 4 times per shift, 15 minutes. TWA: 600 mg/m³ 8 hours. PEAK: 600 mg/m³, 4 times per shift, 15 minutes.

Biological exposure indices

Product/ingredient name	Exposure indices
acetone	**DFG BEI-values list (Germany, 7/2022)** BEI: 50 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift. **TRGS 903 - BEI Values (Germany, 2/2022)** BEI: 80 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift.
propan-2-ol	**DFG BEI-values list (Germany, 7/2022)** BEI: 25 mg/l, acetone [in blood]. Sampling time: end of exposure or end of shift. BEI: 25 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift. **TRGS 903 - BEI Values (Germany, 2/2022)** BEI: 25 mg/l, acetone [in whole blood]. Sampling time: end of exposure or end of shift. BEI: 25 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift.
butanone	**DFG BEI-values list (Germany, 7/2022) Notes: danger from percutaneous absorption (see p. 211 and p. 228).** BEI: 2 mg/l, 2-butanone [in urine]. Sampling time: end of exposure or end of shift. **TRGS 903 - BEI Values (Germany, 2/2022)** BEI: 2 mg/l, 2-butanone [in urine]. Sampling time: end of exposure or end of shift.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be

SECTION 8: Exposure controls/personal protection

required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
acetone	DNEL	Long term Oral	62 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	62 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	186 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	200 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	1210 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	2420 mg/m³	Workers	Local
Isopropyl alcohol	DNEL	Long term Oral	26 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	51 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	89 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	178 mg/m³	General population	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	500 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1000 mg/m³	Workers	Systemic
Orange, sweet, ext.	DNEL	Short term Dermal	92.9 ng/cm²	General population	Local
	DNEL	Short term Dermal	185.8 ng/cm²	Workers	Local
	DNEL	Long term Oral	4.44 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4.44 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	7.78 mg/m³	General population	Systemic
	DNEL	Long term Dermal	8.89 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	31.1 mg/m³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

		Inhalation			
butanone	DNEL	Long term Oral	31 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	106 mg/m³	General population	Systemic
	DNEL	Long term Dermal	412 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	450 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	600 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	900 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	1161 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

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.

Eye/face 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, gases 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 protection

Hand 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 that 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. Recommended : 1 - 4 hours (breakthrough time): Protective gloves made of nitrile rubber (material thickness of 0,4 mm); EN 374-5 Cat. III 4 - 8 hours (breakthrough time): Protective gloves made of Viton®/ butyl rubber (material thickness of 0,7 mm); EN388 Cat.II / EN374 Cat.III / EN374-2

Body protection : 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

SECTION 8: Exposure controls/personal protection

Other skin protection : 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 : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended : organic vapor (Type AX) and particulate filter

Environmental exposure controls : 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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Gas. [Aerosol]

Color : Colorless.

Odor : Characteristic.

Odor threshold : Not available.

Melting point/freezing point : Not applicable.

Initial boiling point and boiling range : Not available.

Flammability : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Flammable in the presence of the following materials or conditions: shocks and mechanical impacts.

Lower and upper explosion limit : Not available.

Flash point : Closed cup: Not applicable.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

pH : Not applicable.

Viscosity : Kinematic: Not applicable.

Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Vapor pressure : Not available.

Relative density : Not applicable.

Density : 0.699 g/cm³

Vapor density : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Fire point : >200°C

Heat of combustion : 6.49 kJ/g

SECTION 9: Physical and chemical properties

Explosive properties : Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Explosive in the presence of the following materials or conditions: shocks and mechanical impacts.

Oxidizing properties : Not available.

Aerosol product

Type of aerosol : Spray

9.2.2 Other safety characteristics

Miscible with water : No.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50 Oral	Rat	5800 mg/kg	-
propan-2-ol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
butanone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
acetone	5800	N/A	N/A	N/A	N/A
propan-2-ol	5000	12800	N/A	N/A	N/A
butanone	2737	6480	N/A	N/A	N/A

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
propan-2-ol	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
butanone	Skin - Mild irritant	Rabbit	-	24 hours 14 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

Conclusion/Summary : Not available.

Sensitization

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	Category 3	-	Narcotic effects
acetone	Category 3	-	Narcotic effects
propan-2-ol	Category 3	-	Narcotic effects
butanone	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

SECTION 11: Toxicological information

Product/ingredient name	Result
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	ASPIRATION HAZARD - Category 1
Orange, sweet, ext.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

11.2 Information on other hazards

SECTION 11: Toxicological information

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 11493300 µg/l Fresh water	Algae - *Navicula seminulum*	96 hours
	Acute EC50 11727900 µg/l Fresh water	Algae - *Navicula seminulum*	96 hours
	Acute EC50 7200000 µg/l Fresh water	Algae - *Selenastrum sp.*	96 hours
	Acute EC50 20.565 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute EC50 23.5 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - *Acartia tonsa* - Copepodid	48 hours
	Acute LC50 7550000 µg/l Fresh water	Crustaceans - *Asellus aquaticus*	48 hours
	Acute LC50 8098000 µg/l Fresh water	Crustaceans - *Ceriodaphnia dubia* - Neonate	48 hours
	Acute LC50 11.26487 ml/L Fresh water	Crustaceans - *Gammarus pulex* - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - *Gammarus pulex*	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - *Daphnia cucullata*	48 hours
	Acute LC50 7810000 µg/l Fresh water	Daphnia - *Daphnia cucullata*	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 8800000 µg/l Fresh water	Daphnia - *Daphnia pulex*	48 hours
	Acute LC50 8000 ppm Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
	Acute LC50 7280000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Acute LC50 8120000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Acute LC50 6210000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Acute LC50 5600 ppm Fresh water	Fish - *Poecilia reticulata*	96 hours
	Chronic NOEC 0.5 ml/L Marine water	Algae - *Karenia brevis*	96 hours
	Chronic NOEC 100 ul/L Marine water	Algae - *Skeletonema costatum*	72 hours
	Chronic NOEC 100 ul/L Marine water	Algae - *Skeletonema costatum*	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - *Daphniidae*	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - *Daphnia magna* - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - *Gasterosteus aculeatus* -	42 days

SECTION 12: Ecological information

		Larvae	
Isopropyl alcohol	Acute EC50 7550 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - *Crangon crangon*	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - *Rasbora heteromorpha*	96 hours
butanone	Acute EC50 >500000 µg/l Marine water	Algae - *Skeletonema costatum*	96 hours
	Acute EC50 5091000 µg/l Fresh water	Daphnia - *Daphnia magna* - Larvae	48 hours
	Acute LC50 3220000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
acetone	-0.23	-	Low
Isopropyl alcohol	0.05	-	Low
Carbon dioxide, gas	0.83	-	Low
Orange, sweet, ext.	2.78 to 4.88	1.502 to 2.597	Low
butanone	0.3	-	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

SECTION 13: Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times 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.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
16 05 04*	gases in pressure containers (including halons) containing hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging	European waste catalogue (EWC)	
Can	15 01 10*	packaging containing residues of or contaminated by hazardous substances

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1950	UN1950	UN1950	UN1950
14.2 UN proper shipping name	AEROSOLS (acetone, butane)	AEROSOLS (acetone, butane)	AEROSOLS (acetone, butane)	Aerosols, flammable (acetone, butane)
14.3 Transport hazard class(es)	2 	2 	2.1 	2.1 
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Limited quantity 1 L
Special provisions 190, 327, 625, 344
Tunnel code (D)
ADR Classification Code: 5F

ADN : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Special provisions 190, 327, 625, 344

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-D, S-U
Special provisions 63, 190, 277, 327, 344, 381, 959

SECTION 14: Transport information

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 75 kg. Packaging instructions: 203. Cargo Aircraft Only: 150 kg. Packaging instructions: 203. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y203.
Special provisions A145, A167, A802

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
butane	≥3 - ≤5	40
isobutane	≥1 - ≤3	40

Labeling : Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Aerosol dispensers :

SECTION 15: Regulatory information

Extremely flammable

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P3a E2

Annex VIIA - Labelling for Contents

Identification	Concentration
aliphatic hydrocarbons	30% and more
perfumes	less than 5%

VOC content : 97.44 %

VOC (g/L) : 681.4

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
acetone	DFG MAC-values list	Acetone	RE2	-
ethanol	DFG MAC-values list	Ethanol; Ethyl alcohol	K5, M5	-

Storage class (TRGS 510) : 2B

Hazardous incident ordinance

This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

Category	Reference number
P3a	1.2.3.1
E2	1.3.2

Hazard class for water : 2

Technical instruction on air quality control : TA-Luft Number 5.2.5: 84.2-100%

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

Canada : Not determined.

China : Not determined.

SECTION 15: Regulatory information

Eurasian Economic Union : **Russian Federation inventory**: Not determined.

Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : Not determined.

Thailand : Not determined.

Turkey : Not determined.

United States : Not determined.

Viet Nam : Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aerosol 1, H222, H229	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H220	Extremely flammable gas.
H222, H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

SECTION 16: Other information

Aerosol 1	AEROSOLS - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Gas 1A	FLAMMABLE GASES - Category 1A
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Press. Gas (Comp.)	GASES UNDER PRESSURE - Compressed gas
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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