



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name UBeeO Cleaning Solution
Company Information R&S Chemicals, Inc. 150 N Research Campus Drive
Kannapolis, NC 28081, USA
Telephone +1(704) 250 2700
Fax +1(704) 253 1052
Emergency Phone # +1(704) 250 2700

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

Identified uses: UBeeo Applicator Cleaning only.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225

Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statement(s):

Pictogram



Signal Word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

Precautionary statement(s)

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P233 Keep the container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P403 + P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Absolute alcohol
Formula: C₂H₆O
Molecular weight: 46.07 g/mol
CAS-No.: 64-17-5
EC-No.: 200-578-6

Hazardous Components

Component	Concentration	GHS Classification
Ethanol	<=100%	Flam. Liq. 2; Eye Irrit. 2A; H225, H319 Concentration limits: >= 50 : Eye Irrit. 2A, H319;

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous areas.

If inhaled If breathed in, move person into fresh air.

In case of skin contact Rinse skin with plenty of water immediately.

In case of eye contact Flush eyes with water for 15 minutes as a precaution. Remove contact lenses.

If swallowed After swallowing: immediately make the victim drink water (two glasses at most). Call a physician immediately.

5. FIRE-FIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media
Water Foam Carbon dioxide (CO₂) Dry powder
Unsuitable extinguishing media
For this substance/mixture, no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides
Combustible.
Pay attention to flashback.
Vapors are heavier than air and may spread along floors.
Development of hazardous combustion gases or vapors possible in the event of a fire.
Forms explosive mixtures with air at ambient temperatures.

5.3 Advice for Firefighters

In the event of fire, wear a self-contained breathing apparatus.

5.4 Further information

Remove the container from the danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the groundwater system.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment, and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors or aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.
Evacuate the danger area, observe emergency procedures, and consult an expert.
For personal protection see section 8.



6.2 Environmental precautions

Do not let the product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®).

Dispose of it properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces, and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substances.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities.

Storage conditions

Keep the container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Hygroscopic.

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
		TWA	1,000 ppm 1,900 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		STEL	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1,000 ppm 1,900 mg/m3	USA. NIOSH Recommended Exposure Limits
		PEL	1,000 ppm 1,900 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Remarks Confirmed animal carcinogen with unknown relevance to humans

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Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Workers	Inhalation	Long-term systemic effects	950 mg/m ³
Workers	Skin contact	Long-term systemic effects	343mg/kg BW/d
Workers	Ingestion	Long-term systemic effects	343mg/kg BW/d
Workers	Inhalation	Acute local effects	1900 mg/m ³

Predicted No Effect Concentration (PNEC)

Compartment	Value
Soil	0.63 mg/kg
Sea water	0.79 mg/l
Fresh water	0.96 mg/l
Fresh water sediment	3.6 mg/l
Sewage treatment plant	580 mg/l

8.2 Exposure controls**Appropriate engineering controls:**

Change contaminated clothing. Wash hands after working with substances.

Environmental exposure controls:

Do not let product enter drains. Risk of explosion.

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 it. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

Skin protection:**Hand protection:** Use appropriate gloves.**Body protection:** Flame retardant antistatic protective clothing.**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.**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Liquid

Color

Colorless

Safety data



pH	7.0 at 10 g/l at 20 °C (68 °F)
Odor Threshold	0.1 ppm
Melting/Freezing point	-114 °C (-173 °F)
Boiling point	78 °C 172 °F
Vapor pressure	57.26 hPa at 19.6 °C (67.3 °F)
Vapor density	1.6
Density	0.789 g/mL at 25 °C (77 °F)
Flashpoint	13 °C (55 °F) - closed cup
Autoignition temperature	363 - 425 °C (685 - 797 °F) at 1,013 hPa
Evaporation rate	No data available
Lower explosion limit	3.1 %(V)
Upper explosion limit	27.7 %(V)
Water solubility	1,000 g/l at 20 °C (68 °F) - completely miscible

10. STABILITY AND REACTIVITY

Reactivity	Vapors may form explosive mixture with air.
Storage stability	Stable under recommended storage conditions.
Materials to avoid	Strong oxidizing agents.
Incompatible materials	No data available
Conditions to Avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 10,470 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 124.7 mg/l - vapor

(OECD Test Guideline 403)

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye irritation.

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Methanol

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471



Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: dominant lethal test
Species: Mouse

Application Route: Oral
Method: OECD Test Guideline 478
Result: Positive results were obtained in some in vivo tests.

Carcinogenicity

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) - 1,730 mg/kg - LOAEL (Lowest observed adverse effect level) - 3,200 mg/kg

RTECS: KQ6300000

irritant effects, respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

General Ecological Information: Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

12.1 Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) - 15,300 mg/l - 96 h (US-EPA)



Toxicity to daphnia and other aquatic invertebrates

Static test LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48h Remarks: (ECHA)

Toxicity to algae

Static test ErC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l- 72 h (OECD Test Guideline 201)

Toxicity to bacteria

Static test IC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)

Toxicity to fish (Chronic toxicity)

Semi-static test NOEC - Danio rerio (zebra fish) - 250 mg/l - 120 h Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

Semi-static test NOEC - Daphnia magna (Water flea) - 9.6 mg/l - 9 d Remarks: (ECHA)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 15 d

Result: ca.95 % - Readily biodegradable. (OECD Test Guideline 301E)

Biochemical Oxygen Demand (BOD) 930 - 1,670 mg/g Remarks: (Lit.)

Theoretical oxygen demand 2,100 mg/g Remarks: (Lit.)

12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Waste material must be disposed of in accordance with the national and local regulations.

14. TRANSPORT INFORMATION

DOT (US) UN number: 1170 Class: 3 Packing group: II
Proper shipping name: UBeeO Cleaning Solution
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG UN number: 1170 Class: 3 Packing group: II EMS-No: F-E, S-D
Proper shipping name: UBeeO Cleaning Solution
Marine Pollutant: yes

IATA UN number: 1170 Class: 3 Packing group: II
Proper shipping name: UBeeO Cleaning Solution

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15. REGULATORY INFORMATION**SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Section 313:

Ethanol	CAS-No.	Revision Date
	64-17-5	1993-04-24

Massachusetts Right To Know Components

Ethanol	CAS-No.	Revision Date
	64-17-5	1993-04-24

Pennsylvania Right To Know Components

Ethanol	CAS-No.	Revision Date
	64-17-5	1993-04-24

California Prop. 65 Components which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ethanol	CAS-No.	Revision Date
	64-17-5	1993-04-24

16. OTHER INFORMATION

Additional Information About This Product: No data available

Disclaimer: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.