



Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 04/16/2018

Reviewed on 05/30/2023

1 Identification

- **Product Identifier**
- **Trade Name: Duo-Klenz**
- **Relevant identified uses of the substance or mixture and uses advised against:**
Used for cleaning and lubricating surgical instruments.
- **Product Description:** Cleaner
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Instrument Specialists Inc.
32390 IH-10 West
Boerne, TX 78006
800-537-1945
- **Emergency telephone number:** 800-537-1945

* 2 Hazard(s) Identification

- **Classification of the substance or mixture:**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

- **Label elements:**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS08

- **Signal word:** Warning
- **Hazard statements:**
H351 Suspected of causing cancer.
- **Precautionary statements:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
4.9 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**

Health = 1
Fire = 1
Reactivity = 0

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Trade Name: Duo-Klenz**· HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	Physical Hazard = 0

· Hazard(s) not otherwise classified (HNOC): None known**3 Composition/Information on Ingredients**

- Chemical characterization: Mixtures**
- Description:** Mixture: consisting of the following components.

· Dangerous Components:

Trade Secret	⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	2-12%
Trade Secret	⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302	≤2.5%

· Additional information:

Trade secret made in accordance with paragraph (i) of §1910.1200 of 29 CFR 1910.1200, the OSHA Hazard Communication Standard and U.S. Code of Federal Regulations.

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

*** 4 First-Aid Measures****· Description of first aid measures****· After inhalation:**

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.
If skin irritation occurs, consult a doctor.

· After eye contact:

If eye irritation occurs, consult a doctor.
Rinse opened eye for several minutes under running water.

· After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.**· Information for doctor****· Most important symptoms and effects, both acute and delayed:** No further relevant information available.**· Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures**· Extinguishing media****· Suitable extinguishing agents:**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**· For safety reasons unsuitable extinguishing agents:** No further relevant information.**· Special hazards arising from the substance or mixture:** No further relevant information available.**· Advice for firefighters****· Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

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Trade Name: Duo-Klenz*** 6 Accidental Release Measures**

- **Personal precautions, protective equipment and emergency procedures:**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

Trade Secret	9.8 mg/m ³
Trade Secret	400 ppm
Trade Secret	45 mg/m ³
Trade Secret	3 mg/m ³

· **PAC-2:**

Trade Secret	110 mg/m ³
Trade Secret	2000* ppm
Trade Secret	180 mg/m ³
Trade Secret	28 mg/m ³

· **PAC-3:**

Trade Secret	650 mg/m ³
Trade Secret	12000** ppm
Trade Secret	1,100 mg/m ³
Trade Secret	130 mg/m ³

*** 7 Handling and Storage**

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool, dry place.
- **Information about storage in one common storage facility:** See Section 10 (Incompatible materials)
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

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* 8 Exposure Controls/Personal Protection

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

· **Control parameters:**

· **Components with occupational exposure limits:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

Trade Secret	
PEL	Long-term value: 980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI
Trade Secret	
REL	Long-term value: 15 mg/m ³ , 3 ppm
TLV	Long-term value: 1* mg/m ³ , 0.2* ppm Skin; *inhalable fraction and vapor
Trade Secret	
PEL	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV	TLV withdrawn-insufficient data human occup. exp.
· Ingredients with biological limit values:	
Trade Secret	
BEI	40 mg/L urine end of shift at end of workweek Acetone (background, nonspecific)

· **Additional information:** The lists that were valid during the creation of this SDS 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 and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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Select glove material based on penetration times, rates of diffusion and degradation.

- **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

- **Eye protection:**



Tightly sealed goggles

* 9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Liquid

Color:

Purple

- **Odour:**

Berries

- **Odor threshold:**

Not determined.

- **pH-value:**

Not applicable.

- **Change in condition**

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

≥83 °C (≥181.4 °F)

- **Flash point:**

95 °C (203 °F)

- **Flammability (solid, gaseous):**

Not applicable.

- **Ignition temperature:**

Not applicable

- **Decomposition temperature:**

Not determined.

- **Auto igniting:**

Product is not self-igniting.

- **Danger of explosion:**

Product does not present an explosion hazard.

- **Explosion limits:**

Lower:

Not determined.

Upper:

Not determined.

- **Vapor pressure @ 20 °C (68 °F):**

≤23 hPa (≤17.3 mm Hg)

- **Density:**

Relative density:

Not determined.

Vapor density:

Not determined.

Evaporation rate:

Not determined.

- **Solubility in / Miscibility with:**

Water:

Fully miscible.

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

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- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 7 %
 - VOC content:** 4 %
- **Solids content:** 1 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

*** 11 Toxicological Information**

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Trade Secret

Oral	LD50	1,600 mg/kg (Rat)
Dermal	LD50	12,200 mg/kg (Rabbit)

- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:**
Strong irritant with the danger of severe eye injury.
Causes serious eye irritation.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories:**
- **IARC (International Agency for Research on Cancer):**
Group 1 - Carcinogenic to humans
Group 2A - Probably carcinogenic to humans
Group 2B - Possibly carcinogenic to humans
Group 3 - Not classifiable as to its carcinogenicity to humans
Group 4 - Probably not carcinogenic to humans

Trade Secret	3
Trade Secret	2B
Trade Secret	2B

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

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· OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **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 product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

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15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

Trade Secret

Trade Secret

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempt from listing.

· **TSCA new (21st Century Act) (Substances not listed)**

Trade Secret

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

Trade Secret

Trade Secret

· **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 are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **New Jersey Right-to-Know List:**

Trade Secret

Trade Secret

Trade Secret

· **New Jersey Special Hazardous Substance List:**

Trade Secret

F3

Trade Secret

CO

· **Pennsylvania Right-to-Know List:**

Trade Secret

Trade Secret

Trade Secret

Trade Secret

· **Pennsylvania Special Hazardous Substance List:**

Trade Secret

E

Trade Secret

E

Trade Secret

E

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

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· TLV (Threshold Limit Value established by ACGIH):	
Trade Secret	A4
Trade Secret	A3

· NIOSH-Ca (National Institute for Occupational Safety and Health):	
None of the ingredients are listed.	

· **GHS label elements**

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

· **Hazard pictograms:**

GHS08

· **Signal word:** Warning· **Hazard statements:**

H351 Suspected of causing cancer.

· **Precautionary statements:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:	
None of the ingredients are listed.	

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other Information**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 04/16/2018 / 7· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

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PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
Carc. 2: Carcinogenicity – Category 2
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

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