

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

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

### 1.1 Product identifier

Product name: INKU-US-1000-CL

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

Identified uses: Flushing solution

Uses advised against: For industrial use only

### 1.3 Details of the supplier of the safety data sheet

Roland DG EMEA NV  
Bell-Telephonaan 2G  
B-2440 Geel  
Belgien  
Telefon-Nr. +32 14575911  
EMAIL: deu-demand-planning@rolanddg.com

#### National Supplier

ROLAND DG (UK) Ltd.  
Griffin House, Windmill  
Road Clevedon, North Somerset  
BS21 6UJ  
Phone: +44 1275 335540  
EMAIL: deu-demand-planning@rolanddg.com

### 1.4 Emergency telephone number:

+35318092566 (National Poisons Information Centre Ireland), 999 and 112 is the national emergency response service in the UK

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

**Classification according to Regulation (EC) No 1272/2008 as amended.**

Not classified

**2.2 Label Elements** not applicable

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## 2.3 Other hazards

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

### Endocrine Disruption-Toxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Endocrine Disruption-ecotoxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**General information:** No hazardous ingredients.

## SECTION 4: First aid measures

**General:** Get medical attention if symptoms occur.

### 4.1 Description of first aid measures

**Inhalation:** Move to fresh air.

**Skin Contact:** Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

**Eye contact:** Rinse immediately with plenty of water.

**Ingestion:** Rinse mouth thoroughly.

**Personal Protection for First-aid Responders:** CAUTION! First aid personnel must be aware of own risk during rescue! See Section 8 of the SDS for Personal Protective Equipment.

**4.2 Most important symptoms and effects, both acute and delayed:** See section 11 of the SDS for additional information on health hazards.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Hazards:** See section 11 of the SDS for additional information on health hazards.

**Treatment:** Treat symptomatically.

## SECTION 5: Firefighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### 5.1 Extinguishing media Suitable extinguishing media:

Extinguish with foam, carbon dioxide, dry powder or water fog.

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**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**5.2 Special hazards arising from the substance or mixture:** During fire, gases hazardous to health may be formed.

**5.3 Advice for firefighters Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Put on protective equipment before entering danger area.

**6.1.1 For non-emergency personnel:** Use personal protective equipment.

**6.1.2 For emergency responders:** Warn everybody of potential hazards and evacuate if necessary. Use personal protective equipment.

**6.2 Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

**6.3 Methods and material for containment and cleaning up:** Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk. Transfer to a container for disposal.

**6.4 Reference to other sections:** See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage:

**7.1 Precautions for safe handling:** Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**7.2 Conditions for safe storage, including any incompatibilities:** Store away from incompatible materials.

**7.3 Specific end use(s):** For industrial use only

## SECTION 8: Exposure controls/personal protection

**8.1 Control Parameters Occupational Exposure Limits**

None of the components have assigned exposure limits.

**Biological Limit Values**

None of the components have assigned exposure limits.

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## 8.2 Exposure controls

**Appropriate Engineering Controls:** Provide adequate ventilation.

### Individual protection measures, such as personal protective equipment

**General information:** Follow training instructions when handling this material. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection:** Safety goggles. EN 166.

**Hand Protection:** Protective gloves should be used if there is a risk of direct contact or splash.(EN374), Chemical resistant gloves required for prolonged or repeated contact., Butyl rubber (EN374), Glove thickness: > 0.70 mm, Break-through time: > 480 min, Glove thickness: > 0.35 mm, Break-through time: > 60 min, Risk of splashes:, Nitrile rubber., Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable., The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

**Skin and Body Protection:** Safety clothes : long sleeved clothing EN13688

**Respiratory Protection:** Under normal conditions of use, respirator protection is not required.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**Environmental Controls:** Do not empty into drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid  
**Form:** liquid  
**Color:** Colorless

**Odor:** acrylic odor

**Odor Threshold:** No data available.

**Freezing point:** -103 °F/-75 °C

**Boiling Point:** 444 °F/229 °C

**Flammability:** Not flammable.

#### Upper/lower limit on flammability or explosive limits

**Explosive limit - upper:** 20.4 %(V)

**Explosive limit - lower:** 0.60 %(V)

**Flash Point:** > 212 °F/> 100 °C

**Self Ignition Temperature:** 372 °F/189 °C

**Decomposition** No data available.

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<b>Temperature:</b>	
<b>pH:</b>	substance/mixture is non-soluble (in water) Not applicable
<b>Viscosity</b>	
<b>Dynamic viscosity:</b>	4.35 mPa.s (77.9 °F/ 25.5 °C, Information taken from Reach Registration (ECHA).)
<b>Kinematic viscosity:</b>	4.78 mm <sup>2</sup> /s (77.9 °F/ 25.5 °C)
<b>Flow Time:</b>	not applicable
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	45 g/l (68 °F/20 °C)
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	1.130
<b>Vapor pressure:</b>	0.06 hPa (68 °F/20 °C)
<b>Relative density:</b>	0.91 (68 °F/20 °C)
<b>Density:</b>	not applicable
<b>Bulk density:</b>	not applicable
<b>Relative vapor density:</b>	No data available.
<b>Particle characteristics</b>	
<b>Particle Size</b>	not applicable
<b>Distribution:</b>	
<b>Specific surface area:</b>	not applicable
<b>Surface charge/Zeta potential:</b>	not applicable
<b>Assessment:</b>	not applicable
<b>Shape:</b>	not applicable
<b>Crystallinity:</b>	not applicable
<b>Surface treatment:</b>	not applicable

## 9.2 Other information

**VOC Content:** EC Directive 1999/13: 0 g/l ~0 % (calculated)

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity:</b>	Material is stable under normal conditions.
<b>10.2 Chemical Stability:</b>	Material is stable under normal conditions.
<b>10.3 Possibility of hazardous reactions:</b>	Not known.
<b>10.4 Conditions to avoid:</b>	Avoid heat or contamination.
<b>10.5 Incompatible Materials:</b>	None known.
<b>10.6 Hazardous Decomposition Products:</b>	By heating and fire, harmful vapors/gases may be formed.

## SECTION 11: Toxicological information

### Information on likely routes of exposure

**Inhalation:** Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

**Skin Contact:** Moderately irritating to skin with prolonged exposure.

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**Eye contact:** Eye contact is possible and should be avoided.

**Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.

## 11.1 Information on toxicological effects

### Acute toxicity

#### Oral

**Product:** Not classified for acute toxicity based on available data.

#### Dermal

**Product:** Not classified for acute toxicity based on available data.

#### Inhalation

**Product:** Not classified for acute toxicity based on available data.

### Repeated dose toxicity

**Product:** No data available.

### Skin Corrosion/Irritation:

**Product:** Based on available data, the classification criteria are not met.

### Serious Eye Damage/Eye Irritation:

**Product:** Based on available data, the classification criteria are not met.

### Respiratory or Skin Sensitization:

**Product:** Based on available data, the classification criteria are not met.

### Germ Cell Mutagenicity

**Product:** Based on available data, the classification criteria are not met.

#### In vitro

#### In vivo

### Carcinogenicity

**Product:** Based on available data, the classification criteria are not met.

### Reproductive toxicity

**Product:** Based on available data, the classification criteria are not met.

### Specific Target Organ Toxicity - Single Exposure

**Product:** Based on available data, the classification criteria are not met.

### Specific Target Organ Toxicity - Repeated Exposure

**Product:** Based on available data, the classification criteria are not met.

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## Aspiration Hazard

**Product:** Based on available data, the classification criteria are not met.

## 11.2 Information on health hazards

### Endocrine Disruption

**Product:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.;

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Acute toxicity

##### Remarks:

Based on available data, the classification criteria are not met.

#### Fish

**Product:** No data available.

#### Aquatic Invertebrates

**Product:** No data available.

#### Toxicity to Aquatic Plants

**Product:** No data available.

#### Toxicity to microorganisms

**Product:** No data available.

### Chronic Toxicity

##### Remarks:

Based on available data, the classification criteria are not met.

#### Fish

**Product:** No data available.

#### Aquatic Invertebrates

**Product:** No data available.

#### Toxicity to Aquatic Plants

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**Product:** No data available.

## 12.2 Persistence and Degradability

**Biodegradation Product:** No data available.

**BOD/COD Ratio Product:** No data available.

## 12.3 Bioaccumulative potential

**Product:** No data available.

## 12.4 Mobility in soil

**Product:** No data available.

## 12.5 Results of PBT and vPvB assessment

**Product:** Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

## 12.6 Endocrine disrupting properties

**Product:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12.7 Other adverse effects:** No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**General information:** Disposal considerations (including disposal of contaminated containers or packaging) Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Disposal methods:** Wash before disposal. Dispose to controlled facilities.  
Since emptied containers retain product residue, follow label warnings even after container is emptied.

**Contaminated Packaging:** Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information



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## ADR

14.1 UN number or ID number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

## RID

14.1 UN number or ID number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

## IMDG

14.1 UN number or ID number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

## IATA

14.1 UN number or ID number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

**14.7 Maritime transport in bulk according to IMO instruments:** not applicable

## SECTION 15: Regulatory information

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

### EU Regulations

**EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC):** none

**EU. REACH Annex XIV, Substances Subject to Authorization:** none

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**  
none

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:** none

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances:**

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none

**EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:** none

**EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17:** none

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended:** none

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended:** none

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended:** none

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended:** none

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** none

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:** none

**EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:**

not applicable

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:** none

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:** none

## 15.2 Chemical safety assessment:

Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

### Abbreviations and acronyms:

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ADNR	Accord européen relatif au transport international des marchandises Dangereuses par la Rhin
AGW	Arbeitsplatzgrenswerte (DE)
ATEmix	Acute toxicity estimate of the mixture
CLP	Classification, Labelling and Packaging of substances and mixtures
CMR	carcinogenicity, mutagenicity and toxicity for reproduction
DNEL	Derived No Effect Level
EC0	Effective Concentration 0%
EC5	Effective Concentration 5%
EC10	Effective Concentration 10%
EC50	Median Effective Concentration
EC100	Effective Concentration 100%
EH40 WEL	Workplace Exposure Limit (GB)

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IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IC50	inhibitory concentration 50%
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IUCLID	International Uniform Chemical Information Database
LC50	Lethal Concentration 50%
LC100	Lethal Concentration 100%
LOAEL	Lowest Observed Adverse Effect Level
LDL0	Lethal Dose (minimum found to be lethal)
LD50	Lethal Dose 50%
MAC	Maximaal Aanvaardbare Concentratie (NL)
MAK	Maximale Arbeitsplatz-Konzentration
NOAEL	No Observed Adverse Effect Level
NOEL	No Observed Effect Level
NOEC	No Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TRGS900	Arbeitsplatzgrenswerte (DE)
TWA	Time Weighted Average
VOC	Volatile Organic Compound
vPvB	very Persistent and very Bioaccumulative substance

**Key literature references and sources for data:** Safety Data Sheet from the supplier.  
ECHA

**Wording of the H-statements in section 2 and 3:** none

**Training information:** Follow training instructions when handling this material.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.