

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/14/2017

Reviewed on 02/14/2017

1 Identification

- **Product identifier**
- **Trade name:** Lanadol X-press
- **Article number:** 2025
- **Application of the substance / the mixture**
High-performance special cleaning agent for less sensitive textiles, for wet cleaning using the LANADOL DRY process
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
- **Manufacturer:**
Chemische Fabrik Kreussler & Co. GmbH
Postfach 120454
D-65082 Wiesbaden
- **Supplier:**
Kreussler Inc., 6103 Johns Road Suit 7, Tampa, FL 33634,
Phone 813-884-1499, Fax 813-884-1599,
Internet: www.kreussler.com, e-mail: office-tampa@kreussler.com
- **Information department:**
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Herr Heiko Schmidt
+49 (0) 611 9271-644
msds-tc@kreussler.com
- **Emergency telephone number:** +49 (0) 611 9271-0

2 Hazard(s) identification

- **Classification of the substance or mixture**
Eye Dam. 1 H318 Causes serious eye damage.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard statements**
Causes serious eye damage.
Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
Wear protective gloves / eye protection.
Avoid release to the environment.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 1
Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH	2	Health = 2
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

· Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

	perfumes Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Flam. Liq. 4, H227	≤1%
157627-86-6	Alcohols C13-C15 branched and linear, ethoxylated Eye Dam. 1, H318; Acute Tox. 4, H302; Aquatic Chronic 3, H412	15-30%
69011-36-5	Alcohols, C13 branched, ethoxylated Eye Dam. 1, H318; Aquatic Chronic 3, H412	5.0-15%
67-63-0	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336	1.0-5.0%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· Description of first aid measures

· **General information:** No special measures required.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Rinse with warm water.

If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult 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.

· Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

· Advice for firefighters

· **Protective equipment:** Use normal protective clothing.

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Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Reference to other sections

No dangerous substances are released.

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:

57-55-6	Methyl glycol	30 mg/m3
56-81-5	glycerol	45 mg/m3
67-63-0	propan-2-ol	400 ppm
7757-82-6	sodium sulphate	9.8 mg/m3
63148-62-9	Polydimethylsiloxane	65 mg/m3

PAC-2:

57-55-6	Methyl glycol	1,300 mg/m3
56-81-5	glycerol	180 mg/m3
67-63-0	propan-2-ol	2000* ppm
7757-82-6	sodium sulphate	110 mg/m3
63148-62-9	Polydimethylsiloxane	720 mg/m3

PAC-3:

57-55-6	Methyl glycol	7,900 mg/m3
56-81-5	glycerol	1,100 mg/m3
67-63-0	propan-2-ol	12000** ppm
7757-82-6	sodium sulphate	650 mg/m3
63148-62-9	Polydimethylsiloxane	4,300 mg/m3

7 Handling and storage

Handling:

Precautions for safe handling

No special measures required.

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: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

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- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

• Control parameters

• Components with limit values that require monitoring at the workplace:

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.

57-55-6 Methyl glycol (15-30%)	
WEEL	Long-term value: 10 mg/m ³
56-81-5 glycerol (1.0-5.0%)	
PEL	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV	TLV withdrawn-insufficient data human occup. exp.
67-63-0 propan-2-ol (1.0-5.0%)	
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
• Ingredients with biological limit values:	
67-63-0 propan-2-ol (1.0-5.0%)	
BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

- **Additional information:** The lists that were valid during the creation were used as basis.

• Exposure controls

• Personal protective equipment:

• General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.

• Protection of hands:



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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

• Material of gloves

PVC or PE gloves

Recommended thickness of the material: ≥ 0.4 mm

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 can not 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 found out by the manufacturer of the protective gloves and has to be observed.

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• **Not suitable are gloves made of the following materials:**

- Leather gloves
- Strong gloves

• **Eye protection:**



Tightly sealed goggles

• **Body protection:** Protective work clothing

9 Physical and chemical properties

• Information on basic physical and chemical properties	
• General Information	
• Appearance:	
Form:	Liquid
Color:	Yellow
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value at 20 °C (68 °F):	6.8
• Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	>100 °C (>212 °F) (ASTMD93(PMCC))
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	> 200 °C (> 392 °F)
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
• Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not determined.
Density at 20 °C (68 °F):	1.02 g/cm³ (8.512 lbs/gal)
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.	
• Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C (68 °F):	26 s (DIN 53211/4)
• Solvent content:	
Organic solvents:	17.9 %
VOC (US)	17.9 %
	180.9 g/l / 1.51 lb/gl
• Other information	No further relevant information available.

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10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **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:** No further relevant information available.
- **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:**

157627-86-6 Alcohols C13-C15 branched and linear,ethoxylated

Oral	LD-50	>2000 mg/kg (rat)
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69011-36-5 Alcohols, C13 branched, ethoxylated

Oral	LD-50	> 5000 mg/kg (rat)
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67-63-0 propan-2-ol

Oral	LD-50	5030 mg/kg (rabbit)
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		3570 mg/kg (rat)
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Dermal	LD-50	12800 mg/kg (rat)
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Inhalative	LC-50/4 h	27.2 mg/l (mouse)
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		72.6 mg/l (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

67-63-0	propan-2-ol	3
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

· **Aquatic toxicity:**

157627-86-6 Alcohols C13-C15 branched and linear,ethoxylated

EC-10	>1000 mg/L (Belebtschlamm)
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EC-50 48h	1-10 mg/l (Daphnia magna) (Literaturangabe)
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EC-50 72h	1 - 10 mg/l (Scenedesmus subspicatus) (Literaturangabe)
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LC-50 96h	1-10 mg/l (Brachydanio rerio)
69011-36-5 Alcohols, C13 branched, ethoxylated	
EC-10 (17 h)	>2500 mg/l (Belebschlamm) (DIN 38412 Teil 8)
EC-50 48h	1-10 mg/l (Daphnia magna)
LC-50 96h	1-10 mg/l (Leuciscus idus) (DIN 38412 Teil 15)
67-63-0 propan-2-ol	
LC-50 48 h	> 100 mg/L (Leuciscus idus)
EC-50	>1000 mg/l (Belebschlamm) (Atmungshemmung des Belebschlamm)
EC-10 (17 h)	5175 mg/l (Pseudomonas putida)
EC-50 48h	2285 mg/l (Daphnia magna)
EC-50 72h	>1000 mg/l (Desmodesmus subspicatus)
LC-50 96h	1400 mg/l (Lepomis macrochirus)
	9640 mg/l (Pimephales promelas)
ErC-50 72h	> 100 mg/l (Scenedesmus subspicatus)

- **Persistence and degradability** No further relevant information available.
- **Other information:** The product is biodegradable.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
Do not allow product to reach ground water, water course or sewage system.
The product may not be released into the environment without control.
- **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:** Dispose of in accordance with local, state, and federal Regulations.
- **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, IMDG, IATA	Void
• UN proper shipping name	
• DOT, ADR, ADN, IMDG, IATA	Void
• Transport hazard class(es)	
• DOT, ADR, ADN, IMDG, IATA	
• Class	Void
• Packing group	
• DOT, ADR, IMDG, IATA	Void

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· Environmental hazards:	
· Marine pollutant:	No
· 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":	Void

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture	
· Sara	
· Section 355 (extremely hazardous substances):	
None of the ingredient is listed.	
· Section 313 (Specific toxic chemical listings):	
67-63-0 propan-2-ol	
· TSCA (Toxic Substances Control Act):	
All ingredients are listed.	
· Proposition 65	
· Chemicals known to cause cancer:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
· New Jersey Right-to-Know List:	
57-55-6 Methyl glycol	
56-81-5 glycerol	
67-63-0 propan-2-ol	
· Pennsylvania Right-to-Know List:	
57-55-6 Methyl glycol	
56-81-5 glycerol	
67-63-0 propan-2-ol	
7757-82-6 sodium sulphate	
· Carcinogenity categories	
· EPA (Environmental Protection Agency)	
87199-17-5 4-formylphenylboronic acid	I (oral)
· TLV (Threshold Limit Value established by ACGIH)	
67-63-0 propan-2-ol	A4
· MAK (German Maximum Workplace Concentration)	
None of the ingredients is listed.	
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	
· Canadian Substances Listings:	
· Canadian Domestic Substances List (DSL):	
All ingredients are listed.	

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• **Canadian Ingredient disclosure list (limit 0.1%)**

All ingredients are listed.

• **Canadian Ingredient disclosure list (limit 1%)**

57-55-6 Methyl glycol

67-63-0 propan-2-ol

• **GHS label elements**

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

• **Hazard pictograms**



GHS05

• **Signal word** Danger

• **Hazard statements**

Causes serious eye damage.

Harmful to aquatic life with long lasting effects.

• **Precautionary statements**

Wear protective gloves / eye protection.

Avoid release to the environment.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

• **National regulations:**

• **Technical instructions (air):**

Class	Share in %
NK	15-30

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The information of Items 4 through 8 and 10 through 12 partially refers not to the use and the proper application of the product (see Directions for Use/Product Information) but to the release of larger quantities in the case of accidents and irregularities.

The information exclusively describes the safety requirements of the product(s) and is based on the present state of our experience.

Non-ionic tensides can have varying characteristics and classifications despite same CAS-No.

• **Department issuing SDS:**

Departent TQM

Herr Heiko Schmidt

+49 (0) 611/9271-144

• **Contact:** Herr Heiko Schmidt

• **Date of preparation / last revision** 02/14/2017 / -

• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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)

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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
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEL: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 4: Flammable liquids – Category 4
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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

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