

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

* 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:**
Department T-PS
+49 (0) 611 9271-0
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**
Avoid release to the environment.
Wear protective gloves / eye protection.
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 = 3
Fire = 2
Reactivity = 0

(Contd. on page 2)

— US —

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 1)

· HMIS-ratings (scale 0 - 4)

HEALTH	*3	Health = *3
FIRE	2	Fire = 2
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	1-5%
67-63-0	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336	1-5%
3811-73-2	pyridine-2-thiol 1-oxide, sodium salt Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H332	≤0.1%

· **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:** 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.

· Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

(Contd. on page 3)

— US —

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:** Use normal protective clothing.
- **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:**
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).
Dispose contaminated material as waste according to item 13.
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	Propylene glycol	30 mg/m ³
56-81-5	glycerol	45 mg/m ³
67-63-0	propan-2-ol	400 ppm
7757-82-6	sodium sulphate	9.8 mg/m ³

· PAC-2:

57-55-6	Propylene glycol	1,300 mg/m ³
56-81-5	glycerol	180 mg/m ³
67-63-0	propan-2-ol	2000* ppm
7757-82-6	sodium sulphate	110 mg/m ³

· PAC-3:

57-55-6	Propylene glycol	7,900 mg/m ³
56-81-5	glycerol	1,100 mg/m ³
67-63-0	propan-2-ol	12000** ppm
7757-82-6	sodium sulphate	650 mg/m ³

* 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.
- **Storage class:** 10
- **Specific end use(s)** No further relevant information available.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 3)

* 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 Propylene glycol (15-30%)

WEEL	Long-term value: 10 mg/m ³
------	---------------------------------------

56-81-5 glycerol (1-5%)

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 (1-5%)

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 (1-5%)

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.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

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.

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

· **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.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 4)

- 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:

61 °C (141.8 °F) (ASTMD93(PMCC))

- Flammability (solid, gaseous):

Not applicable.

- 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 (8.51 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):

23 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.

(Contd. on page 6)

— US —

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 5)

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:**

ATE (Acute Toxicity Estimate)

Oral	LD-50	4,316 mg/kg (rat)
Dermal	LD-50	>12,706 mg/kg (rabbit)
Inhalative	LC-50/4 h	1,360 mg/m ³ (mouse)

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

Oral	LD-50	1,150 mg/kg (rat)
------	-------	-------------------

69011-36-5 Alcohols, C13 branched, ethoxylated

Oral	LD-50	>5,000 mg/kg (rat)
------	-------	--------------------

67-63-0 propan-2-ol

Oral	LD-50	5,030 mg/kg (rabbit)
		3,570 mg/kg (rat)
Dermal	LD-50	12,800 mg/kg (rat)
Inhalative	LC-50/4 h	27.2 mg/m ³ (mouse)
		72.6 mg/m ³ (rat)

- **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
---------	-------------	---

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 6)

* 12 Ecological information

· Toxicity

· Aquatic toxicity:

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

EC-10	>1,000 mg/L (Belebtschlamm)
EC-50 48h	1-10 mg/l (Daphnia magna) (Literaturangabe)
EC-50 72h	1-10 mg/l (Scenedesmus subspicatus) (Literaturangabe)

69011-36-5 Alcohols, C13 branched, ethoxylated

EC-10 (17 h)	>2,500 mg/l (Belebtschlamm) (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	>1,000 mg/l (Belebtschlamm) (Atmungshemmung des Belebtschlammes)
EC-10 (17 h)	5,175 mg/l (Pseudomonas putida)
EC-50 48h	2,285 mg/l (Daphnia magna)
EC-50 72h	>1,000 mg/l (Desmodesmus subspicatus)
LC-50 96h	1,400 mg/l (Lepomis macrochirus)
	9,640 mg/l (Pimephales promelas)
ErC-50 72h	>100 mg/l (Scenedesmus subspicatus)

3811-73-2 pyridine-2-thiol 1-oxide, sodium salt

EC-50 48h	0.022 mg/l (Daphnia magna) (OECD 202)
EC-50 96h	0.00767 mg/l (Oncorhynchus mykiss) (OECD 203)
EC-50 72h	0.46 mg/l (Selenastrum capricornutum) (OECD 201)
NOEC (72 h)	0.08 mg/l (Selenastrum capricornutum) (OECD 201)

· **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:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of in accordance with local, state, and federal Regulations.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 7)

- **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
· 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 components have the value ACTIVE.
· Hazardous Air Pollutants
None of the ingredients is 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 Propylene glycol
56-81-5 glycerol
67-63-0 propan-2-ol

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 8)

· Pennsylvania Right-to-Know List:		
57-55-6	Propylene glycol	
56-81-5	glycerol	
67-63-0	propan-2-ol	
7757-82-6	sodium sulphate	
· Cancerogenity 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.		
· Canadien Substances Listings:		
· Canadien Domestic Substances List (DSL):		
All ingredients are listed.		
· Canadien Ingredient disclosure list (limit 0.1%)		
All ingredients are listed.		
· Canadien Ingredient disclosure list (limit 1%)		
57-55-6	Propylene 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**

Avoid release to the environment.

Wear protective gloves / eye protection.

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.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

Trade name: Lanadol X-Press

(Contd. of page 9)

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:**

Department T-PS

Herr Heiko Schmidt

+49 (0) 611/9271-0

· **Contact:** Herr Heiko Schmidt

· **Date of preparation / last revision** 05/27/2020 / 5

· **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)

HMS: 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

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: 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 Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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.**

— US —