LANDA[®] FLEET MACHINE AND HEAVY DUTY EQUIPEMENT DEGREASER

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 6/24/2020 Version: 1.0

SECTION 1: Identification	
1.1. Identification	
Product form	: Mixture
Product code	: 1911LAN
1.2. Recommended use and restrictions or	n use
Use of the substance/mixture	: Cleaning product: component
1.3. Supplier	
KARCHER NORTH AMERICA 6398 N Karcher Way Aurora, 80239 United States T 303-738-2400 info@karcherna.com	
1.4. Emergency telephone number	
Emergency number	: 800-535-5053 For Chemical Emergency Call INFOTRAC 24hr/day 7days/week Within USA and Canada: 800-535-5053 Outside USA and Canada: 1-352-323-3500 (collect calls accepted)
SECTION 2: Hazard(s) identification 2.1. Classification of the substance or mixed	ture
GHS US classification	
Skin corrosion/irritation Category 1 Serious eye damage/eye irritation Category 1 Full text of H statements : see section 16	H314Causes severe skin burns and eye damageH318Causes serious eye damage
2.2. GHS Label elements, including precau	tionary statements
GHS US labeling	
Hazard pictograms (GHS US)	
Signal word (GHS US) Hazard statements (GHS US)	: Danger : H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS US)	 H314 - Causes severe skin burns and eye damage H318 - Causes serious eye damage P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

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P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P363 - Wash contaminated clothing before reuse.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures		
Name	Product identifier	%
SODIUM HYDROXIDE	CAS-No.: 1310-73-2	1 – 5
SODIUM METASILICATE	CAS-No.: 6834-92-0	1 – 5
ALCOHOLS, C6-C12, ETHOXYLATED	CAS-No.: 68439-45-2	1 – 5

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Respiratory problems: consult a doctor/medical service. Give oxygen or artificial respiration if necessary.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Wash skin with plenty of water. Gently wash with plenty of soap and water. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label. Rinse mouth our with water. Do not induce vomiting.
4.2. Most important symptoms and effects (acute and delayed)	
Symptoms/effects after inhalation	: Irritation of the respiratory tract. May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/effects after skin contact	: Causes skin irritation. Blisters. Burns. Itching.
Symptoms/effects after eye contact	: Causes serious eye irritation. Causes serious eye damage.
4.3. Immediate medical attention and	special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures	
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5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media

: Adapt extinguishing media to the environment for surrounding fires.

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Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Reactivity in case of fire	: Product is not explosive.
5.3. Special protective equipmen	t and precautions for fire-fighters
Firefighting instructions	 Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so. In case of fire: Stop leak if safe to do so. Evacuate area. Fight fire with normal precautions from a reasonable distance.
Protection during firefighting	 Wear recommended personal protective equipment. Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Self-contained breathing apparatus.

6.1. Personal precautions, protective equ	ipment and emergency procedures
General measures	: Avoid contact with skin and eyes. Absorb spillage to prevent material-damage. Clean up any spills as soon as possible, using an absorbent material to collect it. Do not handle until all safety precautions have been read and understood. Warning! Product may cause floors to be slippery.
6.1.1. For non-emergency personnel	
Protective equipment	: Wear recommended personal protective equipment. Protective goggles. Protective clothing. Gloves.
Emergency procedures	: Avoid contact with skin, eyes and clothing. Evacuate unnecessary personnel. Do not breathe vapors. Ventilate spillage area. Mark the danger area. Notify experts.
6.1.2. For emergency responders	
Protective equipment	: Wear recommended personal protective equipment. Use self-contained breathing apparatus. Fire-resistant protective clothing.
Emergency procedures	: Cover spill with non combustible material, e.g.: sand/earth. Evacuate unnecessary personnel. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Do not allow product to spread into the environment. Do not allow to enter drains or water courses. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up	
For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect spillage. Dam up the liquid spill. Do not touch or walk on the spilled product. Stop leak, if possible without risk.
Methods for cleaning up	: Absorb remaining liquid with sand or inert absorbent and remove to safe place. Absorb spilled material with sand or earth. Absorb spillage to prevent material-damage. Clean up immediately by sweeping or vacuum. This material and its container must be disposed of in a safe way, and as per local legislation. Clean contaminated surfaces with a soap solution.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	

No additional information available

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SECTION 7: Handling and storage 7.1. Precautions for safe handling Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use. Precautions for safe handling Avoid breathing dust/fume/gas/mist/vapors/spray. Clean contaminated clothing. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Ensure good ventilation of the work station. Keep away from ignition sources/sparks. Keep away from naked flames/heat. : Observe normal hygiene standards. Hygiene measures 7.2. Conditions for safe storage, including any incompatibilities **Technical measures** : Comply with applicable regulations. Ensure adequate ventilation, especially in confined areas. Keep in a cool, well-ventilated place away from heat. Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use. Keep only in original container. Store in a well-ventilated place. Keep container tightly closed. Store in a dry place. Incompatible products Oxidizing agent. Strong acids. Incompatible materials : Sources of ignition. Storage area Keep container in a well-ventilated place. Keep container tightly closed. Store in a cool area. :

SECTION 8: Exposure controls/personal protection

8.1. Control parameters		
FLEET MACHINE AND HEAVY DUTY EQUIPEMENT DEGREASER		
No additional information available		
SODIUM HYDROXIDE (1310-73-2)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL Ceiling	2 mg/m³	
SODIUM METASILICATE (6834-92-0)		
No additional information available		
ALCOHOLS, C6-C12, ETHOXYLATED (68439-4	15-2)	
No additional information available		
8.2. Appropriate engineering controls		
	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.	
	Avoid release to the environment.	
8.3. Individual protection measures/Personal protective equipment		
Personal protective equipment: Avoid all unnecessary exposure.		
Hand protection:		
Protective gloves		
Eye protection:		
Chemical goggles or safety glasses. Chemical goggles or face shield		

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Skin and body protection:

Chemical resistant apron. Protective clothing

Respiratory protection:

Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: brown
Odor	: mild
Odor threshold	: No data available
рН	: 13.3
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 212 °F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC CONTENT:

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes on exposure to temperature rise.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

10.4. Conditions to avoid

Avoid contact with hot surfaces. High temperature. Heat. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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10.5. Incompatible materials

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

11.1. Information on toxicological effe	ects
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
SODIUM METASILICATE (6834-92-0)	
LD50 oral rat	1152 – 1349 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 5000 mg/kg body weight (EPA OPPTS 870.1200: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	> 2.06 mg/l (EPA OPPTS 870.1300: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	1152 mg/kg body weight
ALCOHOLS, C6-C12, ETHOXYLATED	(68439-45-2)
LD50 oral rat	> 1000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
Skin corrosion/irritation	: Causes severe skin burns.
	pH: 13.3
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	pH: 13.3 : Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
SODIUM METASILICATE (6834-92-0)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
SODIUM METASILICATE (6834-92-0)	
NOAEL (oral,rat,90 days)	227 – 237 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 9 Day Oral Toxicity in Rodents)
Aspiration hazard	: Not classified
/iscosity, kinematic	: No data available
ikely routes of exposure	: Dermal. Inhalation. Skin and eye contact.
Symptoms/effects after inhalation	: Irritation of the respiratory tract. May cause irritation to the respiratory tract, sneezing, coughin
	burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/effects after skin contact	: Causes skin irritation. Blisters. Burns. Itching.
Symptoms/effects after eye contact	: Causes serious eye irritation. Causes serious eye damage.

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SECTION 12: Ecological information

12.1. Toxicity

SODIUM HYDROXIDE (1310-73-2)		
LC50 - Fish [1]	45.4 mg/l (96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Solution >=50%)	
EC50 - Daphnia [1]	40.4 mg/l (48 h, Ceriodaphnia sp., Experimental value, Nominal concentration)	
SODIUM METASILICATE (6834-92-0)		
LC50 - Fish [1]	210 mg/l (ISO 7346-1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value)	
EC50 - Daphnia [1]	1700 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)	

12.2. Persistence and degradability

SODIUM HYDROXIDE (1310-73-2)	HYDROXIDE (1310-73-2)	
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
SODIUM METASILICATE (6834-92-0)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
ALCOHOLS, C6-C12, ETHOXYLATED (68439-45-2)		
Persistence and degradability	Readily biodegradable in water.	

12.3. Bioaccumulative potential

SODIUM HYDROXIDE (1310-73-2)	
Bioaccumulative potential	Not bioaccumulative.
SODIUM METASILICATE (6834-92-0)	
Bioaccumulative potential	Bioaccumulation: not applicable.
ALCOHOLS, C6-C12, ETHOXYLATED (68439-45-2)	
Partition coefficient n-octanol/water (Log Pow)	3.01 (Estimated value)
Bioaccumulative potential	Not bioaccumulative.
12.4. Mobility in soil	
SODIUM HYDROXIDE (1310-73-2)	
Ecology - soil	No (test)data on mobility of the substance available.

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SODIUM METASILICATE (6834-92-0)	DIUM METASILICATE (6834-92-0)	
Surface tension	No data available in the literature	
Ecology - soil	No (test)data on mobility of the substance available.	
12.5. Other adverse effects		

No additional information available

SECTION 13: Disposal considerations	
13.1. Disposal methods	
Regional legislation (waste)	: Disposal must be done according to official regulations.

SECTION 14: Transport information	
14.1. UN number	
Not regulated for transport	
14.2. UN proper shipping name	
Proper Shipping Name (DOT)	: Corrosive liquids, n.o.s. (SODIUM HYDROXIDE), 8, II
14.3. Transport hazard class(es)	
DOT Transport hazard class(es) (DOT) Hazard labels (DOT)	: 8 : 8 CORROSIVE
14.4. Packing group	
Packing group (DOT)	: 11
14.5. Environmental hazards	
Other information	: No supplementary information available.
14.6. Special precautions for user	
DOT No data available	
14.7. Transport in bulk according to Anno	ex II of MARPOL 73/78 and the IBC Code
Not applicable	

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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SODIUM HYDROXIDE (1310-73-2)	
CERCLA RQ	1000 lb
15.2. International regulations	
No additional information available	
15.3. US State regulations	

LEET MACHINE AND HEAVY DUTY EQUIPEMENT DEGREASER	
U.S California - Proposition 65 - Other information	ETHYLENE OXIDE (75-21-8); SULFURIC ACID (7664-93-9)

WARNING:

This product can expose you to ETHYLENE OXIDE, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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Full text of H-phrases		
H314	Causes severe skin burns and eye damage Causes serious eye damage	
H318		
NFPA health haza	ard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard		: 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity		: 0 - Material that in themselves are normally stable, even under fire conditions.
Hazard Rating		
Health		: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability		 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical		: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protectio	n	: C - Safety glasses, Gloves, Synthetic apron

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.