



SILVER FERN CHEMICAL, INC.

SAFETY DATA SHEET

APG 1214 Lauryl Glucoside

1. IDENTIFICATION

Details of the supplier of the safety data sheet**Silver Fern Chemical, Inc.**

2226 Queen Anne Avenue North, Suite C

Seattle, WA 98109, USA

Customer Service: 1-866-282-3384

info@silverfernchemical.com

Commercial name: APG 1214 Lauryl Glucoside**Chemical Type:** Mixture**24 Hour Emergency Contact****Infotrac 1-800-535-5053 (USA & Canada)****Outside USA & Canada 1-352-323-3500****Relevant identified uses of the substance and uses advised against:****Relevant identified uses:****Industrial uses:**

-Formulation

Granular Detergent/Maintenance Products,

Liquid Detergents/Maintenance Products

-End use

Industrial use of Facade/surface Cleaning

Products, Laundry Products and Vehicle Cleaning Products, etc.


Professional uses:

No data

Consumer uses:Consumer use of Air Freshener Products, Polishes, Washing and
Cleaning Products, Pest Control Products, etc.**Uses advised against:**

None known.

2. HAZARD IDENTIFICATION

Warning word	Warning
Hazard Statements: H315 Causes skin irritation H318 Causes serious eye damage Hazard Pictogram:  GHS05	Precautionary statements: - Prevention P264 Wash ... thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. -Response P302+P352 IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P332+P313 If skin irritation occurs: Get medical attention/advice. P362 Take off contaminated clothing and wash before reuse. -Storage – Not applicable -Disposal – Not applicable

Labeling according to 1999/45/EC (DPD)

Symbols and indications of Danger :



Irritant

Risk phrases:

R38: Irritating to skin.

R41: Risk of serious damage to eyes

Safety phrase:

S2: Keep out of the reach of children.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S39: Wear eye/face protection.

Specific concentration limits: None

Classification of the mixture:

Classification according to Regulation (EC) No 1272/2008 CLP]

Hazard classes and Hazard categories

Skin Irrit. 2

Eye Dam. 1

Classification according to 1999/45/EC

Xi; R38-41

Additional information

For full text of R-, H-phrases: see Section 16

Other hazards

Not known to our knowledge.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances:

Not applicable

Mixtures:

Name	Product identifier	Purity % [weight]	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No 1272/2008 [CLP]
C12-14 alkyl polyglucoside (Lauryl Glucoside)	(CAS No.) 110615-47-9 (EC No.) 203-815-1 (REACH No.) 01- 2119489418-23-00**	50	Xi; R38-41	Skin Irrit. 2 Eye Dam. 1
Water	(CAS No.) 7732-18-5 (EC No.) 231-791-2	50	Not classified	Not classified

4. FIRST-AID MEASURES

Description of first aid measures:

First-aid measures general

No general information.

Following inhalation

Immediately call a POISON CENTER or doctor/
physician. Move victim to fresh air.
Give artificial respiration if victim is not breathing.
Administer oxygen if breathing is difficult.
Keep victim warm and quiet.

Following skin contact

If skin irritation occurs: Get medical advice/
attention.
Take off contaminated clothing and wash before
reuse.
In case of contact with substance, immediately flush skin or
eyes with running water for at least 20 minutes.
For hot product, immediately immerse in or flush the
affected area with large amounts of cold water to dissipate
heat.
Remove and isolate contaminated clothing and shoes.
For minor skin contact, avoid spreading material on
unaffected skin.

Most important symptoms and effects, both acute and delayed:

Symptoms/injuries

No general information.

Symptoms/injuries after inhalation

The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation of vapors may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.

Symptoms/injuries after skin contact

Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. There is some evidence to suggest that the material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterized by redness, swelling and blistering. Alkyl glycosides, as a family, are considered non-irritating to the skin. Entry into the blood-stream through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Symptoms/injuries after eye contact

If applied to the eyes, this material causes severe eye damage. Non-ionic surfactants can cause numbing of the cornea, which masks discomfort normally caused by other agents and leads to corneal injury. Irritation varies depending on the duration of contact, the nature and concentration of the surfactant. At very high concentrations, alkyl polyglycosides and polygalactosides are eye irritants while some C8 alkyl glycoside solutions may produce serious eye damage.

Symptoms/injuries after ingestion

Accidental ingestion of the material may be damaging to the health of the individual. Nonionic surfactants may produce localized irritation of the oral or gastrointestinal lining and induce vomiting and mild diarrhea.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media

Alcohol Form, Carbon Dioxide, Water Spray,
Use dry sand or earth to smother fire.

Unsuitable extinguishing media

None Known.

Special hazards arising from the substance or mixture:

Special hazards arising from the substance or mixture

Hazardous combustion products

Pungent and toxic gas can be formed by thermal decomposition and combustion while burning.

Containers may explode on heating. Some may burn but none ignite readily.

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Advice for fire-fighters:

Fire Fighting:

Rescuers must use appropriate protective equipment.

Fight fire from a safe distance and from protected locations.

Substance may be transported in a molten form.

Dike fire-control water for later disposal; do not scatter the material.

Move containers from fire area if you can do it without risk.

Fire involving Tanks: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.

Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.

Fire involving Tanks: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Fire/Explosion Hazard: No additional information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Protective equipment
Emergency procedures

Wear proper protective equipment.
Wipe up spilled materials and follow precaution of protective equipment.
Avoid all possible sources of ignition (halogen, Spark, flame).
Stop leak if you can do it without risk.
Do not touch damaged packages or spilled material without proper protective clothing.
Be aware of incompatible materials and conditions.

For emergency responders
Personal protective equipment

Compatible chemical-resistant gloves.
Chemical safety goggles.

Environmental precautions:

Do not allow to enter drains, sewers or watercourses.

Methods and material for containment and cleaning up:

For containment

Cover spill with plastic sheet to minimize spreading.

For cleaning up

Contain spillages with sand, earth or any suitable adsorbent material and transfer used material to a suitable waste container.

Wash the spillage area clean with water and detergent.

Other information:

No additional information available.

Reference to other sections:

See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:

Protective measures:

Follow all SDS and label precautions even after container is emptied because they may contain product residues.
 Avoid repeated or prolonged skin exposure
 Refer to engineering control and personnel protection.
 Advice on general occupational hygiene No additional information available

Conditions for safe storage, including any incompatibilities:

Suitable container:

Flush empty drums thoroughly with water, crush or perforate and discard or give to a drum reconditioner.

Storage incompatibility:

Be aware of incompatible materials and conditions.

Storage conditions:

No additional information available.

Specific end use(s):

No additional information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

No workplace exposure limit assigned.

Biological limit values

No information available.

Exposure limit at intended use

No information available.

DNEL/DMEL and PNEC-Values

DN(M)EL Worker:

DNEL Type

DNEL Value

Remark

DNEL short-term oral (acute)

DNEL long-term oral (repeated)

DNEL acute dermal, short-term (local)

Assessment of hazard sufficiently coverage by derivation of the respective DNEL for long-term exposure.

DNEL acute dermal, short-term (systemic)		Assessment of hazard sufficiently coverage by derivation of the respective DNEL for long-term exposure.
DNEL long-term dermal (local)		Due to the known irritating potential of the undiluted test substances it is common to use personal protective equipment like gloves to avoid dermal contact there with considering local DNELs as obsolete.
DNEL long-term dermal (systemic)	595,000 mg/kg bw/day	
DNEL acute inhalative (local)		Assessment of hazard sufficiently coverage by derivation of the respective DNEL for long-term exposure.
DNEL acute inhalative (systemic)		Assessment of hazard sufficiently coverage by derivation of the respective DNEL for long-term exposure.
DNEL long-term inhalative (local)		Assessment of hazard not assignable due to missing/insufficient data.
DNEL long-term inhalative (systemic)	420 mg/m ³	
DN(M)EL General population:		
DNEL Type	DNEL Value	Remark
DNEL short-term oral (acute)		Assessment of hazard sufficiently covered by derivation of the respective DNEL for long-term exposure.
DNEL long-term oral (repeated)	35.7 mg/kg bw/day	
DNEL acute dermal, short-term (local)		Assessment of hazard sufficiently covered by derivation of the respective DNEL for long-term exposure.
DNEL acute dermal, short-term (systemic)		Assessment of hazard sufficiently covered by derivation of the respective DNEL for long-term exposure.
DNEL long-term dermal (local)		Only workers will come in contact with the neat irritating substances.
DNEL long-term dermal (systemic)	357,000 mg/kg bw/day	

DNEL acute inhalative (local)

Assessment of hazard sufficiently covered by derivation of the respective DNEL for long-term exposure.

DNEL acute inhalative (systemic)

Assessment of hazard sufficiently covered by derivation of the respective DNEL for long-term exposure.

DNEL long-term inhalative (local)

Assessment of hazard not assignable due to missing/insufficient data.

DNEL long-term inhalative (systemic) 124 mg/m³

PNEC:

PNEC Type	PNEC Value	Assessment factor	Remark
PNEC aquatic, fresh water	0.1 mg/L	10	
PNEC aquatic, marine water	0.01 mg/L	100	
PNEC aquatic, intermittent releases	0.27 mg/L	100	
PNEC sediment, fresh water	0.487 mg/kg	N/A	
PNEC sediment, marine water	0.048 mg/kg	N/A	
PNEC soil	0.654 mg/kg	1000	
PNEC sewage treatment plant (STP)	560 mg/L	1	
PNEC air			
PNEC secondary poisoning	111.11 mg/kg food	90	

Risk management measures according to used control banding approach.

Exposure Scenario	Description	General Measures	Specific Human Health Risk Management Measures	Specific Environment Risk Management Measures
AISE	Formulation :Granular Detergent/Maintenance Products, Liquid Detergents/Maintenance Products End Use :Industrial use of Facade/Surface Cleaning Products, Laundry products and Vehicle cleaning Products, etc. Consumer use :Consumer use of air Freshner products, polishes, Washing and cleansing Products, pest control Products, etc.	(i) Procedural & technological control using Best Available Technique (BAT)	(i) Local Exhaust ventilation (LEV)	(i) Treatment of effluent in biological waste water treatment plant (ii) Use of air emission abatement equipment such as incinerators and scrubbers are applicable as a best practice

Exposure controls:

Appropriate engineering controls

Ensure that there is ready access to eye wash unit and safety shower.

Personal protective equipment:

Eye/Face protection

Skin protection

Safety glasses with side shields Chemical goggles.

Wear general protective gloves, e.g. light weight rubber gloves.

Respiratory protection

In dust atmospheres, use an approved dust respirator.

Thermal hazards

No information available

Environmental exposure controls:

Wear breathing protection, which needs a confirmation from the Korea Occupational Safety and Health Agency.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Viscous Liquid
Odor	No data available
Color	yellowish Transparent liquid
pH	7 ~ 9.5 (10% aq.sol'n)
Melting point/freezing point	>150 °C
Initial boiling point and boiling range	>301 °C at 1013 hPa
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	Non flammable
Upper/lower flammability or explosive limits	No data available
Vapor pressure	< 0.0077 Pa at 20 °C
Vapor density	No data available
Relative density	No data available
Solubility(ies)	> 200 g/L at 20 °C
Partition coefficient n-octanol/water (Log Kow)	< -0.07
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	7,000~11,000 cp at 25°C
Explosives properties	Non explosive
Oxidizing properties	Non oxidizing

Other information:

Surface tension	29.5 mN/m at 23°C
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10. STABILITY AND REACTIVITY

Reactivity:

Hazardous polymerization will not occur.

Chemical stability:

Stable under normal conditions.

Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:

Avoid heat, flames, sparks and other sources of ignition.

Incompatible materials:

Metals, oxidizing materials

Hazardous decomposition products:

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products : Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity

Oral Acute toxicity

LD50 > 5000 mg/kg bw (Rat, equivalent or similar to OECD Guideline 401)

Dermal Acute toxicity

LD50 > 2000 mg/kg bw (Rabbit, equivalent or similar to OECD Guideline 402)

Inhalation Acute toxicity (Vapor)

No data available.

Inhalation Acute toxicity (Dust/Mist)

No data available.

Skin corrosion/irritation

Irritating (Rabbit, OECD Guideline 404)

Serious eye damage/irritation

Highly irritating (Rabbit, OECD Guideline 405)

Irritation to respiratory tract

No data available.

Respiratory or skin sensitization

Not sensitising (Guinea pig, male, OECD Guideline 406)

Germ cell mutagenicity

in vitro : mouse lymphoma L5178Y cells (mammalian cell gene mutation assay, meta. Act. : with and without) : negative
in vitro : S. typhimurium TA 1535, TA 1537, TA 98 and TA 100 (Ames test, OECD Guideline 471, met.act. : with and without) : negative
in vitro : Chinese hamster lung fibroblasts (mammalian chromosome aberration test, OECD Guideline 473, met. Act. : with and without) : negative
in vivo : mouse (CD-1) male (micronucleus assay, OECD guideline 474) : negative

Carcinogenicity

No data available.

Reproductive toxicity	<p>Method : Rat male/female (one generation screening assay, oral: gavage, 0, 100, 300, 1000 mg/kg bw, exposure: 2 weeks before pairing and continuously thereafter, up to the day before sacrifice (study day 53, day 4 post partum). (daily), OECD Guideline 421.</p> <p>Results : NOAEL (P): 1000 mg/kg bw/day (nominal)(male/female)(No treatment-related effects)</p>
STOT-single exposure STOT-repeated exposure	<p>Method : Rat, oral : gavage, 0, 100, 300, 1000 mg/kg bw, exposure : day 6-15 of gestation (daily), OECD Guideline 414</p> <p>Results : NOAEL (maternal toxicity): 1000 mg/kg bw/day (nominal) (no treatment-related effects)</p> <p>NOAEL (developmental toxicity): 1000 mg/kg bw/day (nominal)(no treatment-related effects)</p> <p>No data available.</p> <p>Method: Rat (male/female), subchronic (oral: gavage), 0, 250, 500, 1000 mg/kg bw (nominal in water), Exposure: 90 days (daily), EU Method B. 26 Results: NOAEL: 100 mg/kg bw/day (nominal) (male/female) (Inflammation and ulcerations of mucous membrane of the forestomach due to bolus administration and irritating potential of the test substance.)</p>
Aspiration hazard	No data available.

12. ECOLOGICAL INFORMATION

Toxicity:

Acute (short-term) toxicity

Fish

LC50(96h, *Brachydanio rerio*) = 2.95 mg/L

Daphnia

EC50(48h, *Daphnia magna*) = 7 mg/L

Algae

EC50(72h, *Scenedesmus subspicatus*) = 12.5 mg/L

Chronic (long-term) toxicity

Fish

NOEC(*Brachydanio rerio*) = 1.8 mg/L

Daphnia

NOEC(*Daphnia magna*) = 1 mg/L

Persistence and degradability:

Degradability

Activated sludge, non-adapted, OECD Guideline 301E, readily biodegradable, 88% after 28day (DOC removal)

Bioaccumulative potential:

Log Kow

< -0.07

Mobility in soil:

log K_{oc} = 1.7 at 25 °C

Results of PBT and vPvB assessment:

D-Glucopyranose, oligomeric, decyl octyl glycosides is not a candidate for PBT or vPvB classification.

Other adverse effects:

No additional information available.

13. DISPOSAL CONSIDERATIONS

Disposal consideration:

Waste treatment methods

Small amounts may be diluted with plenty of water and washed away. Waste incineration with the approval of the responsible local authority.

14. TRANSPORT INFORMATION

UN number:

None as product is not classified.

UN proper shipping name:

None as product is not classified.

Transport hazard class(es):

None as product is not classified.

Packing group:

None as product is not classified.

Environmental hazard:

None as product is not classified.

Special precautions for user:

None as product is not classified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

None as product is not classified.

15. REGULATORY INFORMATION

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

EU regulations:

Authorizations and/or restrictions on use:

Authorizations

Not applicable.

Restrictions on use

Not applicable.

Other EU regulations

EU – Detergents Regulation (648/2004) – Consumer Labeling Requirements

EU – Detergents Regulation (648/2004) – Derogations and Banned or Restricted Detergent
Surfactants

US Regulations: TSCA Listed

National Regulations:

Germany - Water Classification (VwVwS) - Annex 1: ID Number 1363, low hazard to waters. Japan - Prevention of Marine Pollution and Disaster - Noxious Liquid Substances - Category Y
Present ($\leq 65\%$, listed under Alkylpolyglucoside solution)

Chemical Safety Assessment:

No additional information available.

16. OTHER INFORMATION

Indication of changes:

Version 1.0 - The SDS format was established according to the REGULATION (EU) N° 453/2010.

Abbreviations and acronyms:

1272/2008 CLP Classification, Labeling and Packaging regulation.

REACH Registration, Evaluation and authorization of chemical substances. DNEL

Derive no effects level.

PENC Predicted no effect concentration.

Key literature references and sources for data:

16.1 Key literature references and sources for data

Chemical Safety Report – C12-14 alkyl polyglucoside (Lauryl Glucoside)

eChemPortal, OECD

REACH-IT

Right Answer

IUCLID

OECD SIDS

ECOTOX

NITE

Recommendations on the transport of dangerous goods

Emergency response guide book

EU RAR

The chemical database

HSDB

IARC

ICSC

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 (CLP)

C12-14 alkyl polyglucoside (Lauryl Glucoside)

Classification according to Regulation (EC) 1207/2008	Classification procedure
Skin Irrit. 2 Eye Dam. 1	Calculation method

Relevant R- and H-phrases (number and full text):

R38: Irritating to skin.

R41: Risk of serious damage to eyes.

H315 Causes skin irritation

H318 Causes serious eye damage

DISCLAIMER OF RESPONSIBILITY

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