

SAFETY DATA SHEET

Date of Issue: 29 January 2021

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade Name	DA 234
Product Synonyms:	Inhibited Liquid Descaler
Recommended Use:	Remove scale and other non-soluble sediments from heat exchangers, boilers.
Company Identification:	Goldcrest International Singapore Pte Ltd 38 Tech Park Crescent Singapore 638098
Emergency phone number:	(65) 6862 6006 Tel (65) 6863 3665 Fax

2. HAZARDS IDENTIFICATION

2.1 GHS Classification

HEALTH HAZARDS:

Acute Toxicity (Oral) Category 4
Acute toxicity (inhalation - Gases) Category 4
Skin corrosion: Category 1
Serious eye damage/eye irritation: Category 1
Skin Sensitizer Category 1

PHYSICAL HAZARDS:

Corrosive to Metals Category 1

ENVIRONMENTAL HAZARDS

Nil

2.2 GHS Label elements, including precautionary statements

PICTOGRAM



SIGNAL WORD

Danger

PHYSICAL HAZARDS:

H290 May be corrosive to metals

HEALTH HAZARDS:

H302 Harmful if swallowed
H332 Harmful if inhaled
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H317 May cause an allergic skin reaction

ENVIRONMENTAL HAZARD: None

Prevention

P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/ vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor/...if you feel unwell.
P330 Rinse mouth.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor/...if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty water/...
P321 Specific treatment (see ... on this label) ... Reference to supplemental first aid instruction.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

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/doctor/...

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see ... on this label) ... Reference to supplemental first aid instruction.

Storage

P405 Store locked up.

Disposal

P501: Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Identity	3.2 Common Name/Synonyms	3.3 CAS No.	% Range
Oxidane	Water	7732-18-5	78 - 80
Hydrochloric Acid	HCl	7647-01-0	< 17
2-Butoxyethanol	Butyl Cellosolv	111-76-2	< 5
Tallow alkylamine ethoxylate	Inhibitor	61791-26-2	< 0.25
Formaldehyde, reaction products with oleylamine	Inhibitor	91782-77-3	< 0.15
Prop-2-yn-1-ol	Inhibitor	107-19-7	< 0.1
Formaldehyde	Inhibitor	50-00-0	< 0.05

4. FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general

Check the vital functions. Unconscious: maintain adequate airway and respiration.

Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation.

Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised.

Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up).

Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain.

Depending on the victim's condition: Send to doctor/hospital.

First-aid measures after inhalation

If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested.

Prostheses such as false teeth may block airway should be removed where possible, prior to initiating first aid procedures.

Apply artificial respiration if not breathing, preferably with a demand valve resuscitator or bag-valve mask device.

Perform CPR if necessary. Transport to hospital, or doctor, without delay.

First-aid measures after skin contact

When contact skin or hair: Immediately flush body and clothes with large amounts of water, using safety shower if available.

Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water.

Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor

First-aid measures after eye contact

When in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water.

Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing for at least 15 minutes.

Transport to hospital or doctor without delay. Removal of contact lenses only be undertaken by skilled personnel.

First-aid measures after ingestion

For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed.

If swallowed do NOT induce vomiting.

If vomiting occurs, lean patient forward or place on left side to maintain open airway and prevent aspiration.

Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or becoming unconscious.

Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Transport to hospital or doctor without delay

4.2. Most important symptoms and effects, both acute and delayed

Inhalation Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Respiratory difficulties.

Possible laryngeal spasm/oedema. Corrosion of the upper respiratory tract.

FOLLOWING SYMPTOMS MAY APPEAR LATER: Risk of pneumonia. Risk of lung oedema.

Skin contact Caustic burns/corrosion of the skin.

Eye contact Corrosion of the eye tissue. Permanent eye damage.

Ingestion Burns to the gastric/intestinal mucosa. Blood in vomit. Possible esophageal perforation. Shock.

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

Obtain medical assistance.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Water spray or fog. Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide.
Unsuitable No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD.
Reactions involving a fire hazard: see "Reactivity Hazard". Not considered to be a significant fire risk.
Acids may react with metals to produce hydrogen, highly flammable and explosive gas.
Heating may cause expansion or decomposition leading to violent rupture of containers.
May emit corrosive, poisonous fumes. May emit acrid smoke.

Explosion hazard INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".
Non combustible. Not considered to be a significant fire risk.
Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.
Heating may cause expansion or decomposition leading to violent rupture of containers.
May emit corrosive, poisonous fumes. May emit acrid smoke.
Decomposition may produce toxic fumes of: , hydrogen chloride Contains low boiling substance:
Closed containers may rupture due to pressure buildup under fire conditions

Reactivity Decomposes on exposure to temperature rise: release of (highly) toxic gases/vapours (chlorine).
On exposure to air: release of corrosive mist.
Reacts violently with (some) bases. Reacts exothermically with many compounds.
Reacts with (strong) oxidizers: release of (highly) toxic gases/vapours (chlorine).
Reacts with (some) metals: release of highly flammable gases/vapours (hydrogen).

5.3. Special protective actions for fire-fighters

Precautionary measures fire Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation.
Exposure to fire/heat: seal off low-lying areas.
Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions Dilute toxic gases with water spray. Take account of toxic fire-fighting water.
Use water moderately and if possible collect or contain it.
Decomposition may produce toxic fumes of: , hydrogen chloride Contains low boiling substance:

Protection Heat/fire exposure: compressed air/oxygen apparatus during firefighting

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment Gloves. Face-shield. Corrosion-proof suit.
Large spills/in enclosed spaces: compressed air apparatus, gas-tight suit.
Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.

Emergency procedures Mark the danger area. No naked flames.
In case of hazardous reactions: keep upwind.
In case of reactivity hazard: consider evacuation.
Large spills/in confined spaces: consider evacuation.

6.1.2. For emergency responders

Protective equipment Equip cleanup crew with proper protection.
Emergency procedures Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment Contain released substance, pump into suitable containers.
Consult "Material-handling" to select material of containers.
Plug the leak, cut off the supply. Dam up the liquid spill.
Hazardous reaction: measure explosive gas-air mixture.
If reacting: dilute combustible/toxic gases/vapours.
Take account of toxic/corrosive precipitation water.
Heat exposure: dilute toxic gas/vapour with water spray.

Methods for cleaning up Liquid spill: neutralize with soda (sodium carbonate).
Neutralized substance: take up in absorbent material.
Scoop absorbed substance into closing containers.
Damaged/cooled tanks must be emptied. Carefully collect the spill/leftovers.
Take collected spill to manufacturer/competent authority.
Clean contaminated surfaces with an excess of water.
Wash clothing and equipment after handling.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Safe handling

Contains low boiling substance:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

Check for bulging containers. Vent periodically Always release caps or seals slowly to ensure slow dissipation of vapours

DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation.

Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area.

WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials.

When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use.

Avoid physical damage to containers. Always wash hands with soap and water after handling.

Work clothes should be laundered separately. Launder contaminated clothing before re-use.

Use good occupational work practice. Observe manufacturer's storage and handling recommendations within this MSDS.

Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

Other information

Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area.

Store away from incompatible materials and foodstuff containers.

Protect containers against physical damage and check regularly for leaks.

Observe manufacturer's storage and handling recommendations contained within this MSDS.

7.2 Conditions for safe storage, including any incompatibilities

Suitable container

DO NOT use aluminium or galvanised containers

Check regularly for spills and leaks Lined metal can, lined metal pail/ can.

Plastic pail. Polyliner drum. Packing as recommended by manufacturer.

Check all containers are clearly labelled and free from leaks.

For low viscosity materials Drums and jerricans must be of the non-removable head type.

Where a can is to be used as an inner package, the can must have a screwed enclosure.

For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.):

Removable head packaging; Cans with friction closures and low pressure tubes and cartridges may be used.

Where combination packages are used, and the inner packages are of glass, porcelain or stoneware, there must be sufficient inert cushioning material in contact with inner and outer packages unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.

Storage incompatibility

Reacts vigorously with alkalis

Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

Source	Material name	TWA	STEL	Peak	Notes
US ACGIH	Hydrogen chloride	Not Available	Not Available	2 ppm	TLV® Basis: URT irr Threshold Limit Values (TLV)

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Hydrochloric acid	Hydrogen chloride; (Hydrochloric acid)	Not Available	Not Available	Not Available
Hydrochloric acid	Deuteriochloric acid; (Deuterium chloride)	1.8 ppm	22 ppm	100 ppm

8.2 Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and

"removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Materials for protective clothing	GIVE GOOD RESISTANCE: natural rubber. nitrile rubber.
Hand protection	Gloves.
Eye protection	Face shield.
Skin and body protection	Corrosion-proof clothing.
Respiratory protection	Gas mask with filter type B. Gas mask with filter type E. High vapour/gas concentration: self-contained respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

PHYSICAL PROPERTIES

Appearance:	Physical State	Liquid
	Colour	Colourless to yellow
Odour		Not Available
Odour threshold;		Not Available
pH (100%)		< 1
Melting Point:		No data available
Boiling Point:		No data available
Flash point:		No data available
Evaporation Rate:		No data available
Flammability (solid, gas);		No data available
Flammable Limits (Approximate volume % in air): LEL & UEL:		No data available
Vapour Pressure:		No data available
Vapour density:		No data available
Specific Gravity		1090 kg/m ³
Solubility In Water		Complete Soluble
Partition coefficient: n-octanol/water;		No data available
Auto-ignition temperature:		No data available
Decomposition Temperature:		No data available
Viscosity		No data available

9.2 Other information

10. STABILITY AND REACTIVITY

10.1 Reactivity	Decomposes on exposure to temperature rise: release highly toxic gases/vapours (chlorine). On exposure to air: release of corrosive mist. Reacts violently with (some) bases. Reacts exothermically with many compounds. Reacts with (strong) oxidizers: release of (highly) toxic gases/vapours (chlorine). Reacts with (some) metals: release of highly flammable gases/vapours (hydrogen).
10.2 Chemical stability	Contact with alkaline material liberates heat
10.3 Possibility of hazardous reactions	Reacts violently with (some) bases: release of heat.
10.4 Conditions to avoid	Incompatible materials.

10.5 Incompatible materials Strong bases. metals. cyanides. silver nitrate.

10.6 Hazardous decomposition products Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

11.1 Toxicological information

	Compenent									
	Category	Hydrochloric Acid, 37% 7647-01-0	Category	2- Butoxyethan ol 111-76-2	Category	Inhibitor	Tallow alkylamine ethoxylate 61791-26-2	Formaldehyde with oleylamine 91782-77-3	Prop-2-yn-1-ol 107-19-7	Formaldehyde 50-00-0
Acute toxicity										
Oral LD50 : mg/kg	NC	rat > 700	4	rat 470	4	rat 950	rat 300 - 2,000	rat 300 - 2,000	rat 56.4	rat 100
Dermal LD50 mg/kg	NC	rabbit > 5010	4	rabbit 2000	3	rabbit 705	No Data	No Data	No Data	rabbit 270
Inhalation (gas) LC50 ppm	2	rat 1h > 3124	4	No Data	2	No Data	No Data	No Data	No Data	No Data
Inhalation (vapor) LC50 mg/l		No Data		No Data		No Data	No Data	No Data	rat 4h 0.75 mg/l	rat 4h 10 mg/l
Inhalation (dust/mist) LC50 mg/l		No Data		No Data		No Data	rat 4h 0.473 mg/l	No Data	No Data	No Data

Mixture : Ingredient Information

Skin corrosion / irritation	Category 1	HCl - Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds 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. Inhibitor - Species: Rabbit Result: Causes burns. Method: OECD Test Guideline 404 Literature data.								
Serious eye damage / eye irritation	Category 1	HCl - When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation. Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the epithelia generally recover rapidly and completely. Severe burns produce long-lasting and possible irreversible damage. The appearance of the burn may not be apparent for several weeks after the initial contact. The cornea may ultimately become deeply vascularised and opaque resulting in blindness. (rabbit): 5mg/30s - mild Inhibitor - Species: Rat Classification: Causes burns. Literature data								
Sensitization										
Dermal	Category 1	Inhibitor - Species: Mouse Result: May cause sensitisation by skin contact. Literature data								
Inhalation	Not classified	Formaldehyde - Species: Mouse Result: Does not cause respiratory sensitisation. Literature data								
Germ cell mutagenicity;	Not classified	Formaldehyde - Mutagenicity: In vitro tests showed mutagenic effects								
Carcinogenicity;	Not classified	Formaldehyde - Carcinogenicity: Possible human carcinogen								
Reproductive toxicity;	Not classified	No data available								
STOT-single exposure;	Not classified	No data available								
STOT-repeated exposure;	Not classified	No data available								
Aspiration hazard	Not classified	No data available								
Potential health effects										
		Inhalation: Inhibitor - Inhalation of aerosols may cause irritation to mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. Fatal if inhaled								
Skin		Inhibitor - Symptoms may be delayed. Toxic in contact with skin. May cause an allergic skin reaction. Causes severe skin burns								
Eyes		Causes serious eye damage.								
Ingestion		Harmful if swallowed. Causes burns.								
Aggravated Medical Condition		: None known.								

Symptoms of Overexposure : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known

Toxicology Assessment Further information : Inhibitor - Solvents may degrease the skin. May cause cancer.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

	Component						
Aquatic toxicity	Hydrochloric Acid, 37% 7647-01-0	2-Butoxyethanol 111-76-2	Inhibitor	Tallow alkylamine ethoxylate 61791-26-2	Formaldehyde with oleylamine 91782-77-3	Prop-2-yn-1-ol 107-19-7	Formaldehyde 50-00-0
Acute	Not Classified	Not Classified	Category 2				
Chronic	Not Classified	Not Classified	Category 2				
Fish LC50 (h) (d) mg/l , pH	Gambusia Affinis LC50 96h 282 mg/l	other fish, LC50 96 h 220 mg/l	No data available	Oncorhynchus mykiss, LC50 96 h > 1-10 mg/l	No data available	Pimephales promelas LC50: 96 h 1.53 mg/l	Fish LC50:96 h 1.41 mg/l
Crustacea LC50 (h) mg/l	No data available	No data available	No data available	No data available	No data available	No data available	No data available
Invertebrate EC50 (h) mg/l	Daphnia magna, EC50 72 h 56 mg/l	Daphnia magna, EC50 24 h 1815 mg/l	No data available	Daphnia magna EC50 48 h > 1-10 mg/l	No data available	Daphnia magna EC50: 48 h 3.36 mg/l	Daphnia pulex EC50:48 h 5.8 mg/l
Micro-organisms EC50 (h) mg/l	No data available	No data available	No data available	Phaeodactylum tricornutum - Algae EC50 72 h > 1 - 10 mg/l	No data available	Desmodesmus subspicatus LC50:72 h > 98.1 mg/l	Desmodesmus subspicatus ErC50:72 h 4.89 mg/l
Micro-organisms EC50 (h) mg/l	No data available	No data available	No data available	No data available	No data available	activated sludge EC20: 0.5 h 2.5 mg/l	activated sludge EC50: 3 h 19 mg/l

12.2 Persistence and degradability: Biodegradability

Component	
Hydrochloric Acid, 37%	Biodegradability: not applicable. No (test)data on mobility of the components of the mixture available.
2-Butoxyethanol	No data available
Inhibitor	Result: Readily biodegradable. Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential: Bioaccumulation

Hydrochloric Acid, 37%	Low potential for bioaccumulation (Log Kow < 4).	Low Pow 0.25 (QSAR)
2-Butoxyethanol	No data available	
Inhibitor	Bioaccumulation is unlikely	

12.4 Mobility in soil: Distribution among environment compartments

Hydrochloric Acid, 37%	May be harmful to plant growth, blooming and fruit formation.
2-Butoxyethanol	No data available
Inhibitor	No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects: Additional ecological information

Do not allow to enter soil, waterways or waste water channels. Do not release untreated into natural waters.

13. DISPOSAL CONSIDERATION

13.1 Disposal methods

Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

Consult manufacturer for recycling options or consult local or regional waste management authority for disposal.

If disposal is necessary, do not dispose into sewage. Consult local, state and federal regulations.

For the safety of persons conducting disposal, recycling or reclamation activities, please refer to Section 8.

Disposed of by approved facilities or licence waste collector. Observe all local and national regulations.


Empty Container Warning (where applicable):

Empty containers may contain residue and can be dangerous. Return to supplier for reuse/ recycling if possible.

Empty containers should be taken for recycling, recovery, or disposal through qualified or licensed facility.

Observe all label safeguards until containers are cleaned and destroyed.

14. TRANSPORT INFORMATION

	<i>ADR, RID, ADN</i>	<i>IMDG</i>	<i>IATA</i>
14.1 UN number	UN 1789	UN 1789	UN 1789
14.2 UN proper shipping name	Hydrochloric Acid	Hydrochloric Acid	Hydrochloric Acid
14.3 Transport hazard class(es)	8	8	8
14.4 Packaging group	II	II	II
14.5 Environmental hazards	Not Classified	Marine pollutant: No	No data
14.6 Special precautions for user		No Information	
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.	No information available		Hazard Label 

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Component

	Hydrochloric Acid, 37%	2-Butoxyethanol	Inhibitor
Ingredients are on the inventory	Yes	No Information	Yes
TSCA	Yes	No Information	No
DSL	No Information	No Information	No Information
EINECS	No Information	No Information	No
AICS	No Information	No Information	No
ISHL	No Information	No Information	No
KECI	No Information	No Information	Yes
IECSC	No Information	No Information	Yes
NZIoC:	No Information	No Information	Yes
PICCS	No Information	No Information	Yes
NEA	Yes	No Information	No Information

Mixture : DA234

Montreal Protocol	Stockholm Convention	Rotterdam Convention	Not Listed
-------------------	----------------------	----------------------	------------

16. OTHER INFORMATION

Goldcrest International Pte. Ltd. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Goldcrest International warrants that this product is of merchantable quality. The implied warranty of fitness for a purpose or uses described on the product's label or in any written instructions or materials distributed to the buyer by Goldcrest International and is hereby disclaimed should buyer use the products in a manner inconsistent with this uses or purposes described therein. In no event shall Goldcrest International Pte. Ltd. be liable for any consequential, exemplary, or incidental damages incurred by buyer even if it has been advised of the possibility of such damages.

Key or legend to abbreviations and acronyms used in the safety data sheet

- ACGIH® = The American Conference of Governmental Industrial Hygienists
- CEL = Chemwatch Exposure Limit
- SPELoTS = Singapore Permissible Exposure Limits of Toxic Substances
- STEL = Short Term Exposure Limits are based on 15-minute exposures
- PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)
- TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures OSHA
- TSCA United States TSCA Inventory
- NZIoC: New Zealand. Inventory of Chemical Substances

DSL	Canadian Domestic Substances List	IECSC	Inventory of Existing Chemical Substances in China
EINECS	European Inventory of Existing Commercial Chemical Substances	KECI	Korean Existing Chemicals Inventory
AICS	Australia Inventory of Chemical Substances	ISHL	Japan - Inventory of Chemical Substances
PICCS	Philippines Inventory of Chemicals and Chemical Substances	NEA	Singapore - National Environment Agency

Inhibitor - Tallow alkylamine ethoxylate 61791-26-2 Formaldehyde with oleylamine 91782-77-3 Prop-2-yn-1-ol 107-19-7 Formaldehyde 50-00-0

This Safety Data Sheet was prepared in accordance to United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 2013)

Date Issued: 29 January 2021

End of Safety Data Sheet