

Page 1 of 12

MATERIALS DATA SAFETY SHEET Tool & Die Cleaner 555

Hales Tooling Components and Industrial Supplies

Chemwatch: 4698-70 Version No: 5.1 Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements S.GHS.AUS.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier	
Product name	Tool & Die Cleaner 555, 400g Aerosol
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	AEROSOLS
Chemical formula	Not Applicable
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Solvent cleaner for tools and dies. Application is by spray atomisation from a hand held aerosol pack Use according to manufacturer's directions.	Relevant identified uses	
--	--------------------------	--

Details of the supplier of the safety data sheet

	•	
Registered company name	Hales Australia Pty Ltd	ABN: 90 107 200 322
Address	45 Woodlands Drive, Braeside VICTORIA 3195	
Telephone	+61 3 8587 1600	
Fax	+61 3 8587 1624	
Website	www.hales.com.au	
Email	info@hales.com.au	

Emergency telephone number

R

Association / Organisation	Poisons Information Centre	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	13 11 26 (24hrs)	+61 1800 951 288
Other emergency telephone numbers	Not Available	+61 3 9573 3188

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

Signal word

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable	
Classification ^[1]	Flammable Liquids Category 1, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	

Label elements

Hazard pictogram(s)	

Danger

Hazard	statement(s)
--------	--------------

AUH019	May form explosive peroxides.	
AUH044	Risk of explosion if heated under confinement.	
AUH066	Repeated exposure may cause skin dryness and cracking.	
H224	Extremely flammable liquid and vapour.	
H319	19 Causes serious eye irritation.	
() 1300 660 854 (B) (03) 8587 1624 🖂 info@hales.com.au cont.		



Page 2 of 12

Tool & Die Cleaner 555, 400gm Aerosol

Page 2 of 12

MATERIALS DATA SAFETY SHEET

H336 May cause drowsiness or dizziness.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention		
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P271	Use only outdoors or in a well-ventilated area.	
P240	Ground and bond container and receiving equipment.	
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.	
P242	Use non-sparking tools.	
P243	Take action to prevent static discharges.	
P261	1 Avoid breathing mist/vapours/spray.	
P280	280 Wear protective gloves, protective clothing, eye protection and face protection.	
P264	Wash all exposed external body areas thoroughly after handling.	

Precautionary statement(s) Response

P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P337+P313	If eye irritation persists: Get medical advice/attention.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
67-63-0	10-30	1550 Slow Reducer
67-64-1	10-30	acetone
Not Available	NotSpec	additives
68476-85-7.	NotSpec hydrocarbon propellant	
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

SECTION 4 First aid measures

If solids or aerosol mists are deposited upon the skin: Flush skin and hair with running water (and soap if available). Pemove any adhering solids with industrial skin cleansing cream. DO NOT use solvents. Seek medical attention in the event of irritation. If aerosols, fumes or combustion products are inhaled: Pemove to fresh air. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.	Eye Contact	If aerosols come in contact with the eyes: If aerosols come in contact with the eyes: If aerosols come in contact with the eyes: If aerosols come in contact with the eyes: If aerosols come in contact with the eyes: If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come in contact lenses after an eye injury should only be undertaken by skilled personnel. If aerosols come is a event of the eye is a event of			
 Remove to fresh air. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. 	Skin Contact	 Flush skin and hair with running water (and soap if available). Remove any adhering solids with industrial skin cleansing cream. DO NOT use solvents. 			
	Inhalation	 Remove to fresh air. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. 			

www.hales.com.au

Page 3 of 12

Tool & Die Cleaner 555, 400gm Aerosol

MATERIALS DATA SAFETY SHEET

Not considered a normal route of entry.

	Not considered a normal route of entry.		
Ingestion	If spontaneous vomiting appears imminent or o	ccurs, hold patient's head down, lower than their	hips to help avoid possible aspiration of
	vomitus.		
Indication of any immediate m	edical attention and special treatment needed	Ł	
Treat symptomatically.			
For acute or short term repeated e	xposures to acetone:		
	re approximate ethanol intoxication.		
About 20% is expired by the lu	ings and the rest is metabolised. Alveolar air half-life is	about 4 hours following two hour inhalation at le	evels near the Exposure Standard; in
,	m and limited clearance, prolong the elimination half-lif		
	and treatment should involve the usual methods of deal	contamination followed by supportive care.	
[Ellenhorn and Barceloux: Medical	Toxicology]		
Management:			
	acetone concentrations may be useful to monitor the se	everity of ingestion or inhalation.	
Inhalation Management:			
	umidified oxygen and ventilate if necessary.		
	assess respiratory function and, if necessary, perform o	chest X-rays to check for chemical pneumonitis.	
	p reduce the inflammatory response.		
 Treat pulmonary oedema with 	PEEP or CPAP ventilation.		
Dermal Management:			
	ninated clothing, place in double sealed, clear bags, la	bel and store in secure area away from patients a	and staff.
 Irrigate with copious amounts 	of water.		
An emollient may be required.			
Eye Management:	n water er coline for 15 minutes		
Irrigate thoroughly with running	-	·	
	er to an ophthalmologist if there is any uptake of the sta	.in.	
Oral Management: No GASTRIC LAVAGE OR EI	METIC		
 Encourage oral fluids. 	METIC .		
Systemic Management:			
 Monitor blood glucose and arte 	orial pH		
 Ventilate if respiratory depress 	•		
 If patient unconscious, monitor 			
 Symptomatic and supportive c 			
The Chemical Incident Manageme			
Guy's and St. Thomas' Hospital Tr			
BIOLOGICAL EXPOSURE INDEX			
	observed in specimens collected from a healthy worke	er exposed at the Exposure Standard (ES or TLV)):
Determinant	Sampling Time	Index	Comments
Acetone in urine	End of shift	50 mg/L	NS
NS: Non-specific determinant: alac	o observed after exposure to other material		
For acute or short term repeated e	•		
Rapid onset respiratory depresentation	ssion and hypotension indicates serious ingestions that	t require careful cardiac and respiratory monitorin	ng together with immediate intravenous
access.	a sector de la construction de la c	. Active test share a state of the state of	- Iteration for the second second second states the second
30 mins. post-ingestion.	e usefulness of emesis or lavage 2 hours post-ingestio	n. Activated charcoal and cathartics are not clinic	cally useful. Ipecac is most useful when given
 There are no antidotes. 			
 Management is supportive. Tree 	eat hypotension with fluids followed by vasopressors.		

- Management is supportive. Treat hypotension with fluids followed by vasopressors.
- Watch closely, within the first few hours for respiratory depression; follow arterial blood gases and tidal volumes.
- + Ice water lavage and serial haemoglobin levels are indicated for those patients with evidence of gastrointestinal bleeding.

SECTION 5 Firefighting measures

Extinguishing media

SMALL FIRE:

Water spray, dry chemical or CO2

LARGE FIRE:

- Water spray or fog.
- Water spray or fog.
- Alcohol stable foam.
- Dry chemical powder.
- Carbon dioxide

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result			
Advice for firefighters				
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use. 			
Fire/Explosion Hazard	 Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Severe explosion hazard, in the form of vapour, when exposed to flame or spark. Vapour may travel a considerable distance to source of ignition. 			
	(1300 660 854 (03) 8587 1624 (info@hales.com.au (cont.			

Page 3 of 12

Page 4 of 12

Tool & Die Cleaner 555, 400gm Aerosol

Print Date: 06/12/2022

Page 4 of 12

MATERIALS DATA SAFETY SHEET

 Aerosol cans may explode on exposure to naked flames. Rupturing containers may rocket and scatter burning materials. 			
	Hazards may not be restricted to pressure effects.		
	May emit acrid, poisonous or corrosive fumes.		
	 On combustion, may emit toxic fumes of carbon monoxide (CO). 		
	Combustion products include:		
	carbon monoxide (CO)		
	carbon dioxide (CO2)		
	other pyrolysis products typical of burning organic material.		
	Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.		
HAZCHEM	Not Applicable		

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures	\$
See section 8	

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Wear protective clothing, impervious gloves and safety glasses. Shut off all possible sources of ignition and increase ventilation. Wipe up. If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely.
Major Spills	 DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Water spray or fog may be used to disperse / absorb vapour. Absorb or cover spill with sand, earth, inert materials or vermiculite. If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely. Collect residues and seal in labelled drums for disposal. Remove leaking cylinders to a safe place if possible. Release pressure under safe, controlled conditions by opening the valve.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides. The substance may concentrate around the container opening for example. Purchases of peroxidisable chemicals should be restricted to ensure that the chemical is used completely before it can become peroxidised. A responsible person should maintain an inventory of peroxidisable chemicals or annotate the general chemical inventory to indicate which chemicals are subject to peroxidation. An expiration date should be determined. The chemical should either be treated to remove peroxides or disposed of before this date. The person or laboratory receiving the chemical should record a receipt date on the bottle. The individual opening the container should add an opening date. Unopened containers received from the supplier should be safe to store for 18 months. Opened containers should not be stored for more than 12 months. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid sonking, naked lights or ignition sources. More inconcentrate or puncture aerosol cans. DO NOT incinerate or puncture aerosol cans. DO NOT incinerate or puncture aerosol cans. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against establish
Other information	 Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can Store in original containers in approved flammable liquid storage area. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. No smoking, naked lights, heat or ignition sources.

Page 5 of 12

Tool & Die Cleaner 555, 400gm Aerosol

MATERIALS DATA SAFETY SHEET

- ▶ Keep containers securely sealed. Contents under pressure.
- Store away from incompatible materials.
- Store in a cool, dry, well ventilated area.
- Avoid storage at temperatures higher than 40 deg C.
- Store in an upright position.
- Protect containers against physical damage.
 - Check regularly for spills and leaks.
 Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	Aerosol dispenser. Check that containers are clearly labelled.	
Storage incompatibility	Avoid reaction with oxidising agents	

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	1550 Slow Reducer	Isopropyl alcohol	400 ppm / 983 mg/m3	1230 mg/m3 / 500 ppm	Not Available	Not Available
Australia Exposure Standards	acetone	Acetone	500 ppm / 1185 mg/m3	2375 mg/m3 / 1000 ppm	Not Available	Not Available
Australia Exposure Standards	hydrocarbon propellant	LPG (liquified petroleum gas)	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	Т	EEL-2		TEEL-3
1550 Slow Reducer	400 ppm	400 ppm 2000* ppm			12000** ppm
acetone	Not Available	Not Available Not Available			Not Available
hydrocarbon propellant	65,000 ppm	65,000 ppm 2.30E+05 ppm			4.00E+05 ppm
Ingredient	Original IDLH	Original IDLH		Revised IDLH	
1550 Slow Reducer	2,000 ppm	2,000 ppm		Not Available	
acetone	2,500 ppm	2,500 ppm		Not Available	
hydrocarbon propellant	2,000 ppm	2,000 ppm		Not Available	

Exposure controls

be highly effective in protecting workers and The basic types of engineering controls are Process controls which involve changing the Enclosure and/or isolation of emission sour "adds" and "removes" air in the work enviro ventilation system must match the particula Employers may need to use multiple types General exhaust is adequate under normal obtain adequate protection. Provide adequate ventilation in warehouse Air contaminants generated in the workplace	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls car 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. General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. 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.				
Type of Contaminant:	Type of Contaminant:				
· · · · · · · · · · · · · · · · · · ·	aerosols, (released at low velocity into zone of active generation)				
controls direct spray, spray painting in shallow bo	direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion) 1-2.5 m/s (200-500 f/				
Within each range the appropriate value de	Within each range the appropriate value depends on:				
Lower end of the range		Upper end of the range			
1: Room air currents minimal or favourab	1: Room air currents minimal or favourable to capture				
2: Contaminants of low toxicity or of nuis	2: Contaminants of low toxicity or of nuisance value only.				
3: Intermittent, low production.	3: Intermittent, low production. 3: High production,		on, heavy use		
4: Large hood or large air mass in motion	Large hood or large air mass in motion 4: Small hood-local control only				
with the square of distance from the extract accordingly, after reference to distance from 1-2 m/s (200-400 f/min.) for extraction of so considerations, producing performance def	Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction spatements are installed or used.				

cont.

Page 6 of 12 Tool & Die Cleaner 555, 400gm Aerosol

MATERIALS DATA SAFETY SHEET

Personal protection	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	 No special equipment needed when handling small quantities. OTHERWISE: For potentially moderate exposures: Wear general protective gloves, eg. light weight rubber gloves. For potentially heavy exposures: Wear chemical protective gloves, eg. PVC. and safety footwear.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. OTHERWISE: Voveralls. Skin cleansing cream. Eyewash unit. Do not spray on hot surfaces. The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton. Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost. BRETHERICK: Handbook of Reactive Chemical Hazards.

Respiratory protection

Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- + Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered
- appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear oily liquid / spray; not miscible with water. Supplied as an aerosol pack. Contents under PRESSURE . Cont	ains highly flammable hydrocarbon p	ropellant.
Physical state	Liquid	Relative density (Water = 1)	0.85
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Not Available	
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	-30	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	7.5	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.2	Volatile Component (%vol)	90 approx
Vapour pressure (kPa)	379	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (Not Available%)	Not Available
Vapour density (Air = 1)	>1	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity See section 7

() 1300 660 854 (1) (03) 8587 1624 (1) info@hales.com.au

cont.

Page 6 of 12

Page 7 of 12

Tool & Die Cleaner 555, 400gm Aerosol

MATERIALS DATA SAFETY SHEET

Chemical stability	 Elevated temperatures. Presence of open flame. Product is considered stable. Hazardous polymerisation will not occur. 		
Possibility of hazardous reactions	See section 7		
Conditions to avoid	See section 7		
Incompatible materials	See section 7		
Hazardous decomposition products	See section 5		

SECTION 11 Toxicological information

Information on toxicological effects

ecis		
Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of toxic gases may cause: Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures; respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest; heart: collapse, irregular heartbeats and cardiac arrest; gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain. Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure. Symptoms of asphyxia is allowed to progress, there may be nausea and vomiting, further physical weakness, drowsiness and ringing in the ears. If the asphyxia is allowed to progress, there may be nausea and vomiting, further physical weakness and unconsciousness and, finally, convulsions, coma and death. WARNING:Intentional misuse by concentrating/inhaling contents may be lethal . The odour of isopropanol may give some warning of exposure, but odour fatigue may occur. Inhalation of isopropanol may produce irritation of		
the nose and throat with sneezing, sore throat and runny nose Effects of exposure to acetone by inhalation include central ne		
Accidental ingestion of the material may be damaging to the health of the individual. Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments Swallowing 10 millilitres of isopropanol may cause serious injury; 100 millilitres may be fatal if not properly treated. The adult single lethal dose is approximately 250 millilitres. Isopropanol is twice as poisonous as ethanol, and the effects caused are similar, except that isopropanol does not cause an initial feeling of well-being. Swallowing may cause nausea, vomiting and diarrhea; vomiting and stomach inflammation is more prominent with isopropanol than with ethanol. Animals given near-lethal doses also showed inco-ordination, lethargy, inactivity and loss of consciousness. There is evidence that a slight tolerance to isopropanol may be acquired.		
Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. 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 characterised by redness, swelling and blistering. Spray mist may produce discomfort Open cuts, abraded or irritated skin should not be exposed to this material 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. 511 jpa		
Not considered to be a risk because of the extreme volatility of the gas. Isopropanol vapour may cause mild eye irritation at 400 parts per million. Splashes may cause severe eye irritation, possible burns to the cornea and eye damage. Eye contact may cause tearing and blurring of vision. There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain. The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration		
Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Main route of exposure to the gas in the workplace is by inhalation. Long term, or repeated exposure of isopropanol may cause inco-ordination and tiredness. Repeated inhalation exposure to sisopropanol may produce sleepiness, inco-ordination and liver degeneration. Animal data show developmental effects only at exposure levels that produce toxic effects in adult animals. Isopropanol does not cause genetic damage. There are inconclusive reports of human sensitisation from skin contacts with isopropanol. Chronic alcoholics are more tolerant of the whole-body effects of isopropanol. Animal testing showed the chronic exposure did not produce reproductive effects. NOTE: Commercial isopropanol does not contain "isopropyl oil", which caused an excess incidence of sinus and throat cancers in isoproanol production workers in the past. "Isopropyl oil" is no longer formed during production of isopropanol.		
TOXICITY Not Available	IRRITATION Not Available	
TOXICITY IRRITATION Dermal (rabbit) LD50: 12800 mg/kg ^[2] Eye (rabbit): 10 mg - moderate		
	 co-ordination, and vertigo. Inhalation of aerosols (mists, fumes), generated by the material individual. There is some evidence to suggest that the material can cause cause further lung damage. Inhalation of toxic gases may cause: Central Nervous System effects including depression, heat respiratory: acute lung swellings, shortness of breath, whe heart: collapse, irregular heartbeats and cardiac arrest; gastointestinal: irritation, ulcers, nausea and vorniting (metric) as a simple asphyxia: gastointestinal: irritation, ulcers, nausea and vorniting (metric) and death. WATANING: Intentional misuse by concentrating/inhaling contert The odour of isopropanol may give some warning of exposure to acetone by inhalation include central nestupor, low blood pressure, fast heart rate, metabolic acidosis, kidney tubules. Accidental ingestion of the material may be damaging to the hot normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial of Swallowing 10 millilities. Isopropanol may cause are prominent with isopropanol than with ethanol. Animals given nonscolusness. There is evidence that a slight tolerance to isopropanol may be for some evidence to suggest that the material may cause in prominent with isopropanol than with ethanol. Animals given nonscolusness. Not considered to be a risk because of the extreme volatility of sopropanol vapoure evidence to suggest that the material may cause in prominent with sopropanol than with ethanol. Animals given nonscolusness. Prene is evidence to suggest that the material may cause a faity and ey of some time. Repeated exposure can cause contact of Spray mist may produce discomfort Open cuts, abraded or irritated skin should no	



() 1300 660 854 (1) (03) 8587 1624 (2) info@hales.com.au

Page 7 of 12

Page 8 of 12 Tool & Die Cleaner 555, 400gm Aerosol

MATERIALS DATA SAFETY SHEET

	Inhalation(Mouse) LC50; 53 mg/L4h ^[2]	Eye (rabbit): 100) mg - SEVERE		
	Oral (Mouse) LD50; 3600 mg/kg ^[2]	Eye (rabbit): 100)mg/24hr-moderate		
		Skin (rabbit): 50	0 mg - mild		
	тохісіту	IRRITATION			
	Dermal (rabbit) LD50: 20000 mg/kg ^[2]	Eye (human): 50	00 ppm - irritant		
	Inhalation(Mouse) LC50; 44 mg/L4h ^[2]	Eye (rabbit): 20r	Eye (rabbit): 20mg/24hr -moderate		
	Oral (Rat) LD50; 5800 mg/kg ^[2] Eye (rabbit)		5 mg - SEVERE		
acetone		Eye: adverse ef	iect observed (irritating) ^[1]		
		Skin (rabbit): 50	0 mg/24hr - mild		
		Skin (rabbit):395	5mg (open) - mild		
		Skin: no adverse	effect observed (not irritating) ^[1]		
	ΤΟΧΙCITY	IRRITATION			
hydrocarbon propellant	Inhalation(Rat) LC50; 658 mg/l4h ^[2]	Not Available			
Legend:	1. Value obtained from Europe ECHA Registered Su specified data extracted from RTECS - Register of T	•	ained from manufacturer's SDS. Unless otherwise		
1550 SLOW REDUCER	known as reactive airways dysfunction syndrome (R criteria for diagnosing RADS include the absence of asthma-like symptoms within minutes to hours of a c airflow pattern on lung function tests, moderate to se lymphocytic inflammation, without eosinophilia. RAD the concentration of and duration of exposure to the result of exposure due to high concentrations of irrita disorder is characterized by difficulty breathing, coug The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or lin	previous ainways disease in a non-atop documented exposure to the irritant. Ot avere bronchial hyperreactivity on meth S (or asthma) following an irritating inh irritating substance. On the other hand ating substance (often particles) and is ph and mucus production.	bic individual, with sudden onset of persistent her criteria for diagnosis of RADS include a reversible acholine challenge testing, and the lack of minimal alation is an infrequent disorder with rates related to , industrial bronchitis is a disorder that occurs as a		
HYDROCARBON PROPELLANT	inhalation of the gas				
Tool & Die Cleaner 555, 400g Aerosol & HYDROCARBON PROPELLANT	No significant acute toxicological data identified in literature search.				
Tool & Die Cleaner 555, 400g Aerosol & 1550 SLOW REDUCER	the central nervous system and drowsiness. Few ha swallowing is common particularly among alcoholics headache. In the absence of unconsciousness, reco	ve reported skin irritation. It can be abs or suicide victims and also leads to fai very usually occurred. Repeated doses	nting, breathing difficulty, nausea, vomiting and		
Tool & Die Cleaner 555, 400g Aerosol & 1550 SLOW REDUCER & ACETONE	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production or vesicles, scaling and thickening of the skin.				
	For acetone: The acute toxicity of acetone is low. Acetone is not a	skin irritant or sensitizer, but it remove	es fat from the skin, and it also irritates the eye. Anima		
Tool & Die Cleaner 555, 400g Aerosol & ACETONE	testing shows acetone may cause macrocytic anaen metre has not caused neurobehavioural deficits.		· · · · · ·		
, ,	testing shows acetone may cause macrocytic anaen		· · · ·		
Aerosol & ACETONE	testing shows acetone may cause macrocytic anaen metre has not caused neurobehavioural deficits.	nia. Studies in humans have shown tha	t exposure to acetone at a level of 2375 mg/cubic		
Aerosol & ACETONE	testing shows acetone may cause macrocytic anaen metre has not caused neurobehavioural deficits.	nia. Studies in humans have shown tha Carcinogenicity	t exposure to acetone at a level of 2375 mg/cubic		
Aerosol & ACETONE Acute Toxicity Skin Irritation/Corrosion	testing shows acetone may cause macrocytic anaen metre has not caused neurobehavioural deficits.	nia. Studies in humans have shown tha Carcinogenicity Reproductivity	t exposure to acetone at a level of 2375 mg/cubic		

SECTION 12 Ecological information

T 1 0 D' 01 555 400	Endpoint	Test Duration (hr)	Species	Value	Source
Tool & Die Cleaner 555, 400g Aerosol	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
1550 Slow Reducer	EC50(ECx)	24h	Algae or other aquatic plants	0.011mg/L	4
	LC50	96h	Fish	4200mg/l	4

1300 660 854 👔 (03) 8587 1624

www.hales.com.au

cont.

MATERIALS DATA SAFETY SHEET

	EC50	72h		Algae or other aquatic plants		>1000mg/l	1
	EC50	48h		Crustacea		7550mg/l	4
	EC50	96h		Algae or other aquatic plants		>1000mg/l	1
	Endpoint	Test Duration (hr)	S	pecies	Value		Sourc
	NOEC(ECx)	12h	Fi	sh	0.001r	ng/L	4
acetone	LC50	96h	Fi	sh	3744.6	6-5000.7mg/L	4
	EC50	48h	Ci	rustacea	6098.4	lmg/L	5
	EC50	96h	AI	gae or other aquatic plants	9.873-	27.684mg/l	4
	Endpoint	Test Duration (hr)		Species		Value	Sourc
	EC50(ECx)	96h		Algae or other aquatic plants		7.71mg/l	2
	LC50	96h		Fish		24.11mg/l	2
hydrocarbon propellant	EC50	96h		Algae or other aquatic plants		7.71mg/l	2
	EC50(ECx)	96h		Algae or other aquatic plants		7.71mg/l	2
	LC50	96h		Fish		24.11mg/l	2
	EC50	96h		Algae or other aquatic plants		7.71mg/l	2

EXERCISE TOTAL TOT

For Isopropanol (IPA):

log Kow: -0.16- 0.28;

Half-life (hr) air: 33-84; Half-life (hr) H2O surface water: 130;

Henry's atm m3 /mol: 8.07E-06;

BOD 5: 1.19,60%;

COD: 1.61-2.30, 97%;

ThOD: 2.4;

BOD 20: >70%

Environmental Fate: IPA is expected to partition primarily to the aquatic compartment (77.7%) with the remainder to the air (22.3%). Overall, IPA presents a low potential hazard to aquatic or terrestrial biota.

Aquatic Fate: IPA has been shown to biodegrade rapidly in aerobic, aqueous biodegradation tests and therefore, would not be expected to persist in aquatic habitats. IPA is expected to volatilize slowly from water. The calculated half-life for the volatilization from surface water (1 meter depth) is predicted to range from 4 days (from a river) to 31 days (from a lake). Hydrolysis is not considered a significant degradation process for IPA, however; aerobic biodegradation of IPA has been shown to occur rapidly under non-acclimated conditions. IPA is readily biodegradable in both freshwater and saltwater (72 to 78% biodegradation in 20 days).

Terrestrial Fate: Soil - IPA is also not expected to persist in surface soils due to rapid evaporation to the air. IPA will evaporate quickly from soil and is not expected to partition to the soil however; IPA has the potential to leach through the soil due to its low soil adsorption. Plants - Toxicity of IPA to plants is expected to be low.

Atmospheric Fate: IPA is subject to oxidation predominantly by hydroxy radical attack. The atmospheric half-life is expected to be 10 to 25 hours. Direct photolysis is not expected to be an important transformation process for the degradation of IPA.

Ecotoxicity: IPA has been shown to have a low order of acute aquatic toxicity and is not acutely toxic to fish and invertebrates. Chronic aquatic toxicity has also been shown to be of low concern and bioconcentration in aquatic organisms is not expected to occur.

For Ketones: Ketones, unless they are alpha, beta--unsaturated ketones, can be considered as narcosis or baseline toxicity compounds.

Aquatic Fate: Hydrolysis of ketones in water is thermodynamically favourable only for low molecular weight ketones. Reactions with water are reversible with no permanent change in the structure of the ketone substrate. Ketones are stable to water under ambient environmental conditions. When pH levels are greater than 10, condensation reactions can occur which produce higher molecular weight products. Under ambient conditions of temperature, pH, and low concentration, these condensation reactions are unfavourable. Based on its reactions in air, it seems likely that ketones undergo photolysis in water.

Terrestrial Fate: It is probable that ketones will be biodegraded by micro-organisms in soil and water.

Ecotoxicity: Ketones are unlikely to bioconcentrate or biomagnify.

DO NOT discharge into sewer or waterways. For Acetone:

log Kow : -0.24; Half-life (hr) air : 312-1896; Half-life (hr) H2O surface water : 20; Henry's atm m3 /mol : 3.67E-05 BOD 5: 0.31-1.76,46-55% COD: 1.12-2.07 ThOD: 2.2BCF: 0.69.

Environmental Fate: The relatively long half-life allows acetone to be transported long distances from its emission source.

Atmospheric Fate: Acetone preferentially locates in the air compartment when released to the environment. In air, acetone is lost by photolysis and reaction with photochemically produced hydroxyl radicals; the estimated half-life of these combined processes is about 22 days. Air Quality Standards: none available.

Terrestrial Fate: Very little acetone is expected to reside in soil, biota, or suspended solids and has low propensity for soil absorption and a high preference for moving through the soil and into the ground water. Acetone released to soil volatilizes although some may leach into the ground where it rapidly biodegrades. Soil Guidelines: none available. Aquatic Fate: A substantial amount of acetone can also be found in water. Acetone is highly soluble and slightly persistent in water, with a half-life of about 20 hours Drinking Water Standard: none available.

Ecotoxicity: Acetone does not concentrate in the food chain, is minimally toxic to aquatic life and is considered to be readily biodegradable. Testing shows that acetone exhibits a low order of toxicity for brook trout, fathead minnow, Japanese quail, ring-neck pheasant and water fleas. Low toxicity for aquatic invertebrates. For aquatic plants, NOEC: 5400-7500 mg/L. Acetone vapours were shown to be relatively toxic to flour beetle and flour moths and their eggs. The direct application of acetone liquid to the body of the insects or surface of the eggs did not, however, cause any mortality. The ability of acetone to inhibit cell multiplication has been examined in a wide variety of microorganisms. Mild to moderate toxicity occurred in bacteria exposed to acetone for 6-4 days however, overall data indicates a low degree of toxicity for acetone. The only exception to these findings was the results obtained with the flagellated protozoa (Entosiphon sulcatum).

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
1550 Slow Reducer	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)	
acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)	

🜔 1300 660 854 🗎 (03) 8587 1624 🖂 info@hales.com.au

cont.

MATERIALS DATA SAFETY SHEET

Bioaccumulative potential

Ingredient	Bioaccumulation		
1550 Slow Reducer	LOW (LogKOW = 0.05)		
acetone	OW (BCF = 0.69)		
Mobility in soil			
Ingredient	Mobility		
1550 Slow Reducer	HIGH (KOC = 1.06)		
acetone	HIGH (KOC = 1.981)		

SECTION 13 Disposal considerations

Product / Packaging disposal	 Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: Reduction Reuse Recycling Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Consult State Land Waste Management Authority for disposal. Discharge contents of damaged aerosol cans at an approved site. Allow small quantities to evaporate. Bury residues and emptied aerosol cans.
------------------------------	---

SECTION 14 Transport information

Labels Required

	2
Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG)

UN number	1950		
UN proper shipping name	AEROSOLS		
Transport hazard class(es)	Class 2.1 Subrisk Not Applicable		
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions 63 190 277 327 344 381 Limited quantity 1000ml		

Air transport (ICAO-IATA / DGR)

UN number	1950		
UN proper shipping name	Aerosols, flammable		
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	2.1 Not Applicable 10L	
Packing group	Not Applicable		
Environmental hazard	Not Applicable		

() 1300 660 854 (1) (03) 8587 1624 (1) info@hales.com.au



Page 10 of 12

Page 11 of 12 Tool & Die Cleaner 555, 400gm Aerosol Issue Date: 20/08/2021 Print Date: 06/12/2022

cont.

Page 11 of 12

MATERIALS DATA SAFETY SHEET

	Special provisions	A145 A167 A802
	Cargo Only Packing Instructions	203
	Cargo Only Maximum Qty / Pack	150 kg
Special precautions for user	Passenger and Cargo Packing Instructions	203
	Passenger and Cargo Maximum Qty / Pack	75 kg
	Passenger and Cargo Limited Quantity Packing Instructions	Y203
	Passenger and Cargo Limited Maximum Qty / Pack	30 kg G

Sea transport (IMDG-Code / GGVSee)

UN number	1950		
UN proper shipping name	AEROSOLS	AEROSOLS	
Transport hazard class(es)	IMDG Class 2.1 IMDG Subrisk Not Applicable		
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user	EMS Number Special provisions Limited Quantities		

Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

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

Product name	Group
1550 Slow Reducer	Not Available
acetone	Not Available
hydrocarbon propellant	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
1550 Slow Reducer	Not Available
acetone	Not Available
hydrocarbon propellant	Not Available

SECTION 15 Regulatory information

1550 Slow Reducer is found on t	he following regulatory lists	
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals		International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
Australian Inventory of Industrial Chemicals (AIIC)		Monographs
acetone is found on the following	n roquiatory listo	
	rmation System (HCIS) - Hazardous Chemicals	Australian Inventory of Industrial Chemicals (AIIC)
Schedule 5	Scheduling of Medicines and Poisons (SUSMP) -	
hydrocarbon propellant is found	on the following regulatory lists	
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals		Chemical Footprint Project - Chemicals of High Concern List
Australian Inventory of Industrial Ch	nemicals (AIIC)	
National Inventory Status		
National Inventory	Status	
Australia - AIIC / Australia	Yes	
Non-Industrial Use	les	
Canada - DSL		
Canada - DSL	Yes	
Canada - DSL Canada - NDSL	Yes No (1550 Slow Reducer; acetone; hydrocarbon propell	ant)
		ant)
Canada - NDSL	No (1550 Slow Reducer; acetone; hydrocarbon propell	ant)
Canada - NDSL China - IECSC	No (1550 Slow Reducer; acetone; hydrocarbon propella Yes	ant)
Canada - NDSL China - IECSC Europe - EINEC / ELINCS / NLP	No (1550 Slow Reducer; acetone; hydrocarbon propell Yes Yes	ant)
Canada - NDSL China - IECSC Europe - EINEC / ELINCS / NLP Japan - ENCS	No (1550 Slow Reducer; acetone; hydrocarbon propell Yes Yes Yes	ant)



() 1300 660 854 (1) (03) 8587 1624 (1) info@hales.com.au

MATERIALS DATA SAFETY SHEET

National Inventory	Status
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	20/08/2021
Initial Date	07/02/2011

SDS Version Summary

Version	Date of Update	Sections Updated
4.1	21/08/2020	Classification
5.1	20/08/2021	Classification change due to full database hazard calculation/update.

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

www.hales.com.au



