

Novachem Pty Ltd

Version No: 1.1

Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 23/10/2024 Print Date: 23/10/2024 S.GHS.AUS.EN

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

Product Identifier	
Product name	Aniline
Chemical Name	aniline
Synonyms	Not Available
Proper shipping name	ANILINE
Other means of identification	019-03991, 019-03996

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

Relevant identified uses	For research use only
Relevant identified uses	For research use only

Details of the manufacturer or supplier of the safety data sheet

Registered company name	Novachem Pty Ltd	Novachem Pty Ltd
Address	25 Crissane Road, Heidelberg West Victoria 3081 Australia	25 Crissane Road, Heidelberg West Victoria 3081 Australia
Telephone	+61384151255	+61384151255
Fax	+61386250088	+61386250088
Website	www.novachem.com.au	www.novachem.com.au
Email	novachem@novachem.com.au	novachem@novachem.com.au

Emergency telephone number

• • •		
Association / Organisation	Victorian Poisons Information Centre	Victorian Poisons Information Centre
Emergency telephone number(s)	13 11 26	13 11 26
Other emergency telephone number(s)	Not Available	Not Available

SECTION 2 Hazards identification

Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification ^[1]	Flammable Liquids Category 4, Acute Toxicity (Oral) Category 3, Acute Toxicity (Dermal) Category 3, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Inhalation) Category 2, Germ Cell Mutagenicity Category 2, Carcinogenicity Category 1B, Reproductive Toxicity Category 2, Specific Target Organ Toxicity - Single Exposure Category 1, Specific Target Organ Toxicity - Repeated Exposure Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1
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)				Ł	
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Signal word

Danger

Hazard statement(s)

H227	Combustible liquid.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H317	May cause an allergic skin reaction.

H318	Causes serious eye damage.
H330	Fatal if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs. (Blood, Nervous system)
H372	Causes damage to organs through prolonged or repeated exposure. (Blood, Nervous system)
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statement(s) Pre	vention
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider.

Precautionary statement(s) Storage

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
62-53-3	99	aniline
Legend:	 Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification d Classification drawn from C&L * EU IOELVs available 	rawn from Regulation (EU) No 1272/2008 - Annex VI; 4.

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	 If this product comes 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 until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin or hair contact occurs: 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.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. 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. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

The material may induce methaemoglobinaemia following exposure.

- Initial attention should be directed at oxygen delivery and assisted ventilation if necessary. Hyperbaric oxygen has not demonstrated substantial benefits.
- + Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed.
- Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue. (Cyanosis, alone, is not an indication for treatment). The usual dose is 1-2
- mg/kg of a 1% solution (10 mg/ml) IV over 50 minutes; repeat, using the same dose, if symptoms of hypoxia fail to subside within 1 hour.

Thorough cleansing of the entire contaminated area of the body, including the scalp and nails, is of utmost importance.
 BIOLOGICAL EXPOSURE INDEX - BEI

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Aniline

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV): Sampling Time

. Determinant Index Comment 1. Methaemoglobin in blood 1.5% of haemoglobin During or end of shift B, NS, SQ

B: Background levels occur in specimens collected from subjects NOT exposed

NS: Non-specific determinant; also observed after exposure to other materials

SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

SECTION 5 Firefighting measures

Extinguishing media

Foam.

- Dry chemical powder.BCF (where regulations permit).
- 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. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon dioxide (CO2) nitrogen oxides (NOx) other pyrolysis products typical of burning organic material. May emit poisonous fumes.
HAZCHEM	•3X

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	 Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by all means available, spillage from entering drains or water courses.

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

SECTION 7 Handling and storage

Precautions for safe handling	
Safe handling	 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 allow clothing wet with material to stay in contact with skin
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.

Conditions for safe storage, including any incompatibilities

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Suitable container	 Glass container is suitable for laboratory quantities Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. 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. All inner and sole packagings for substances that have been assigned to Packaging Groups I or II on the basis of inhalation toxicity criteria, must be hermetically sealed.
Storage incompatibility	 For aniline: Avoid reaction with albumin amines, halocarbons and solutions of iron, zinc and aluminium. Aniline may react violently with acids, boron trichloride, diisopropyl peroxycarbonate, N-haloimide, hexachloromelamine, peroxyformic acid, chloropicrin. May react explosively with benzyldiazonium-2-carboxylate, dibenzoyl peroxide, epichlorohydrin, fluorine nitrate, hydrogen peroxide, nitromethane, perchloric acid and formaldehyde, perchloryl fluoride, perchromates, peroxyformic acid peroxysulfuric acid, silver perchlorate, sodium perchlorate. May ignite on contact with nitric acid, nitrosyl perchlorate, potassium peroxide, sodium peroxide and water, tetranitromethane. Many arylamines (aromatic amines such as aniline, N-ethylaniline, o-toluidine, xylidine etc. and their mixtures) are hypergolic (ignite spontaneously) with red fuming nitric acid. When the amines are dissolved in triethylamine, ignition occurs at -60 deg. C. or less. Various metal oxides and their salts may promote ignition of amine-red fuming nitric acid systems. Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates. Avoid strong acids, bases.

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	aniline	Aniline & homologues	2 ppm / 7.6 mg/m3		Not Available	Not Available	Not Available
Ingredient	Original IDLH			Revis	sed IDLH		
aniline	100 ppm			Not Available			

Exposure controls

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.
Individual protection measures, such as personal protective equipment	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] 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.
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care.
Body protection	See Other protection below
Other protection	 Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent] Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent] Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely. Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the: 'Forsberg Clothing Performance Index'.

The effect(s) of the following substance(s) are taken into account in the computergenerated selection: Aniline

Material	CPI
BUTYL	A
BUTYL/NEOPRENE	A
NEOPRENE/NATURAL	A
NITRILE+PVC	A
PE/EVAL/PE	A
PVA	A
SARANEX-23	A
TEFLON	A
VITON/NEOPRENE	A
NATURAL RUBBER	В
NEOPRENE	В
NITRILE	В
PVC	В
NATURAL+NEOPRENE	С

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

Where the glove is to be used on a short term, casual or infrequent basis, factors such as 'feel' or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Ansell Glove Selection

Glove — In order of recommendation
AlphaTec® 02-100
AlphaTec® 38-612
AlphaTec® 15-554
AlphaTec® 53-001
AlphaTec® 58-005
AlphaTec® Solvex® 37-175
BioClean™ Emerald BENS
BioClean™ Extra BLAS
BioClean™ Fusion (Sterile) S-BFAP
BioClean™ N-Plus BNPS

The suggested gloves for use should be confirmed with the glove supplier.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	nearly colourless			
Physical state	Liquid	Relative density (Water = 1)	1.019 - 1.023	
Odour	Characteristic	Partition coefficient n-octanol / water	0.94	
Odour threshold	Not Available	Auto-ignition temperature (°C)	615	
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available	
Melting point / freezing point (°C)	-6	Viscosity (cSt)	Not Available	
Initial boiling point and boiling range (°C)	184	Molecular weight (g/mol)	Not Available	
Flash point (°C)	70	Taste	Not Available	
Evaporation rate	Not Available	Explosive properties	Not Available	
Flammability	Combustible.	Oxidising properties	Not Available	

Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the 'Exposure Standard' (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AK-AUS	-	AK-PAPR-AUS / Class 1
up to 50 x ES	-	AK-AUS / Class 1	-
up to 100 x ES	-	AK-2	AK-PAPR-2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- 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

Upper Explosive Limit (%)	11	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.2	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Partly miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	3.22	VOC g/L	Not Available
Heat of Combustion (kJ/g)	Not Available	Ignition Distance (cm)	Not Available
Flame Height (cm)	Not Available	Flame Duration (s)	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	Enclosed Space Ignition Deflagration Density (g/m3)	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. 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

Inhaled	There is strong evidence to suggest that this material can cause, if inhaled once, very serious, irreversible damage of organs. The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Single and repeated exposures to aniline are hazardous. Symptoms of exposure may include cough, wheeze, and laryngitis. Even a concentration of 7 parts per million may present a serious hazard, with acute exposure causing a spinning sensation, headache, mental confusion, weakness, dizziness, nausea and blue lips. These are due to high levels of methaemoglobin in the blood. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce severely toxic effects; these may be fatal.
Ingestion	There is strong evidence to suggest that this material can cause, if swallowed once, very serious, irreversible damage of organs. The material is not thought to produce adverse health effects following ingestion (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. The substance and/or its metabolites may bind to haemoglobin inhibiting normal uptake of oxygen. This condition, known as 'methaemoglobinemia', is a form of oxygen starvation (anoxia). Symptoms include cyanosis (a bluish discolouration skin and mucous membranes) and breathing difficulties. Symptoms may not be evident until several hours after exposure. The mean lethal dose of aniline may be between 15 and 30 grams. It may cause tissue hypoxia (lack of oxygen) due to formation of methaemoglobin, resulting in effects to the central nervous system and heart. Symptoms include severe headache, nausea, vomiting, chest and abdominal pains, and dryness of the throat. Central nervous system effects include confusion, irritability, inco-ordination, a spinning sensation, faintness, ringing in the ears, weakness, disorientation, lethargy, numbness of the extremities, joint pains, drowsiness, delirium, coma and unconsciousness. Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.
Skin Contact	Skin contact with the material may produce toxic effects; systemic effects may result following absorption. There is strong evidence to suggest that this material, on a single contact with skin, can cause very serious, irreversible damage of organs. The material may accentuate any pre-existing dermatitis condition 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. There is some evidence to suggest that the material may cause moderate 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.
Eye	If applied to the eyes, this material causes severe eye damage.
Chronic	Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There is ample evidence that this material can be regarded as being able to cause cancer in humans based on experiments and other information. There is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. Most arylamines are very toxic to the blood cell-forming system, and they produce methaemoglobinaemia in humans. High doses congest the spleen and then cause formation of sarcomas (a type of malignant tumour). Chronic exposure to aniline may result in anaemia, anorexia, weight loss and has been reported to produce red blood cell damage. Kidney and liver damage has been reported in test animals. Chronic poisoning in humans is said to be due to central nervous system symptoms but this observation is contested by some authorities.
	Continued

	ΤΟΧΙΟΙΤΥ	IRRITATION	
Aniline	Not Available	Not Available	
	ΤΟΧΙCΙΤΥ	IRRITATION	
	dermal (rat) LD50: 1400 mg/kg ^[2]	Eye (Rodent - rabbit): 0.1mL
aniline	Inhalation (Rat) LC50: >0.525 mg/l4h ^[1]	Eye (Rodent - rabbit): 20mg/24H - Moderate	
	Oral (Rat) LD50: 250 mg/kg ^[2]	Skin (Rodent - rabbi	t): 20mg/24H - Moderate
Legend:	1. Value obtained from Europe ECHA Registered specified data extracted from RTECS - Register o	Substances - Acute toxicity 2. Value o Toxic Effect of chemical Substances	btained from manufacturer's SDS. Unless otherw
ANILINE	 employment in the manufacture of aniline dyes hawhich became malignant. Aniline itself has not been incriminated Laboratory (in vitro) and animal studies show, exp of producing mutation. The material may produce severe irritation to the oproduce conjunctivitis. The material may cause skin irritation after prolon production of vesicles, scaling and thickening of the substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to human Evidence of carcinogenicity may be inadequate or NOTE: The substance is classified under EC Dire (substances suspected of being carcinogenic and Exposure to the material for prolonged periods material f	is been associated with the developme en proven to be a carcinogen, but the osure to the material may result in a p eye causing pronounced inflammation ged or repeated exposure and may pro- ne skin. Is. limited in animal testing. ctive on Dangerous Substances (67/5- for mutagenic) ay cause physical defects in the develo	48/EEC): Possible risk of irreversible effects, opping embryo (teratogenesis).
Aniline & ANILINE	The following information refers to contact allerge Contact allergies quickly manifest themselves as contact eczema involves a cell-mediated (T lymph urticaria, involve antibody-mediated immune react	ns as a group and may not be specific contact eczema, more rarely as urticar ocytes) immune reaction of the delaye ions.	to this product. ia or Quincke's oedema. The pathogenesis of ed type. Other allergic skin reactions, e.g. contact
Acute Toxicity	✓	Carcinogenicity	¥
Skin Irritation/Corrosion	×	Reproductivity	¥
Serious Eye Damage/Irritation	*	STOT - Single Exposure	v
Respiratory or Skin sensitisation	*	STOT - Repeated Exposure	×
N			

SECTION 12 Ecological information

Toxicity									
Aniline	Endpoint	Test Duration (hr)	est Duration (hr) Species		Value	Value		Source	
	Not Available	Not Available Not Available		Not Available	Not Available		Not Available		
	Endpoint	Test Duration (hr)	Spec	ies		Value		Source	
aniline	EC50	72h	Alga	Algae or other aquatic plants		10-32m	g/L	4	
	EC50	48h	Crus	Crustacea		0.08-1m	g/l	4	
	NOEC(ECx)	504h	Crus	Crustacea		0.004mg	g/l	2	
	LC50	96h	Fish	Fish		5-7mg/l		2	
	EC50	96h	Alga	e or other aquatic plar	nts	19mg/l		4	
Legend:	Extracted from 1. IL Ecotox database - / (Japan) - Bioconcel	JCLID Toxicity Data 2. Europe Aquatic Toxicity Data 5. ECET(ntration Data 8. Vendor Data	ECHA Regis OC Aquatic I	stered Substances - E Hazard Assessment D	cotoxicological Infor ata 6. NITE (Japan)	mation - A - Bioconce	quatic Toxi entration D	icity 4. US EPA, ata 7. METI	

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Environmental fate: Aniline may be released into the environment as a result of its production and use as chemical intermediate in the production of polymers, pesticides,

pharmaceuticals and dyes. Terrestrial fate: If released to soil, aniline is expected to have low to moderate adsorptive potential to soil, with stronger sorption under acidic conditions. The compound will also adsorb onto clay minerals at lower pH. However, adsorption onto colloidal organic is extremely high thus will tend to increase its rate of leaching into groundwater. For Arylamines (Aromatic Amines):

Aquatic Fate - Arylamines, particularly aromatic amines, irreversibly bind with humic substances present in most natural waters. The estimated half-life of aromatic amines in water is approximetly 100 days.

Ecotoxicity: Anilines, benzidines and toluidines are of environmental concern. Anilines and benzidines are both acutely toxic and toxic depending on the specific aquatic species (except algae).

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
aniline	HIGH	HIGH
Bioaccumulative potential		
Ingredient	Bioaccumulation	
aniline	LOW (LogKOW = 0.9)	
Mobility in soil		
Ingredient	Mobility	
aniline	LOW (Log KOC = 44.78)	

SECTION 13 Disposal considerations

Waste treatment methods	
Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. 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. 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 sever may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site.

SECTION 14 Transport information

Labels Required Image: Comparison of the second s

Land transport (ADG)

14.1. UN number or ID number	1547		
14.2. UN proper shipping name	ANILINE		
14.3. Transport hazard class(es)	Class Subsidiary Hazard	6.1 Not Applicable	
14.4. Packing group	П		
14.5. Environmental hazard	Environmentally hazar	dous	
14.6. Special precautions for user	Special provisions	279 100 ml	

Air transport (ICAO-IATA / DGR)

14.1. UN number	1547
14.2. UN proper shipping name	Aniline

14.3. Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subsidiary Hazard ERG Code	6.1 Not Applicable 6L		
14.4. Packing group				
14.5. Environmental hazard	Environmentally hazardous			
14.6. Special precautions for user	Environmentally hazardous Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions Passenger and Cargo Maximum Qty / Pack Passenger and Cargo Limited Quantity Packing Instructions Passenger and Cargo Limited Maximum Qty / Pack		A113 662 60 L 654 5 L Y641 1 L	

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1547	1547		
14.2. UN proper shipping name	ANILINE			
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Haz	6.1 zard Not Applicable		
14.4. Packing group	II			
14.5 Environmental hazard	Marine Pollutant			
14.6. Special precautions for user	EMS Number Special provisions Limited Quantities	F-A , S-A 279 100 mL		

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

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

Product name	Group
aniline	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
aniline	Not Available

SECTION 15 Regulatory information

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

aniline is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Schedule 5
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2A: Probably carcinogenic to humans

International Agency fsor Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non- Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (aniline)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	

National Inventory	Status
USA - TSCA	All chemical substances in this product have been designated as TSCA Inventory 'Active'
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	23/10/2024
Initial Date	23/10/2024

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
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- 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

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