

Neutrog Sudden Impact for Roses - Liquid

Neutrog Australia

Chemwatch: 5256-28

Version No: 4.1

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

Chemwatch Hazard Alert Code: 1

Issue Date: 23/12/2022

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

Product Identifier

Product name	Neutrog Sudden Impact for Roses - Liquid
Chemical Name	Not Applicable
Synonyms	Not Available
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	Use according to manufacturer's directions.
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Details of the manufacturer or supplier of the safety data sheet

Registered company name	Neutrog Australia
Address	288 Mine Road Kanmantoo SA 5252 Australia
Telephone	+61 8 8538 3500
Fax	Not Available
Website	www.neutrog.com.au
Email	admin@neutrog.com.au

Emergency telephone number

Association / Organisation	Neutrog Australia	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	+61 8 8538 3500 (Business Hours)	+61 1800 951 288
Other emergency telephone numbers	0409 728 738 (AH)	+61 3 9573 3188

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

SECTION 2 Hazards identification

Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification ^[1]	Serious Eye Damage/Eye Irritation Category 2B
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)	Not Applicable
Signal word	Warning

Hazard statement(s)

H320	Causes eye irritation.
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Precautionary statement(s) Prevention

P264	Wash all exposed external body areas thoroughly after handling.
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Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

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SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	10-30	Neutrog GOGO Juice
7783-20-2	<10	ammonium sulfate
7778-80-5	<10	potassium sulfate
7783-28-0	<10	diammonium phosphate
16731-55-8	<10	potassium metabisulfite
10043-52-4	<1	calcium chloride
7487-88-9	<1	magnesium sulfate, anhydrous
11138-66-2	<1	gum xanthan
7720-78-7	<1	ferrous sulfate anhydrous
7785-87-7	<1	manganese sulfate
7733-02-0	<1	zinc sulfate
7758-98-7	<1	copper sulfate
7732-18-5	>60	water
Legend:	1. Classified by Chemwatch; 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

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▶ Wash out immediately with fresh 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. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
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.
Ingestion	▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Both dermal and oral toxicity of manganese salts is low because of limited solubility of manganese. No known permanent pulmonary sequelae develop after acute manganese exposure. Treatment is supportive.

[Ellenhorn and Barceloux: Medical Toxicology]

In clinical trials with miners exposed to manganese-containing dusts, L-dopa relieved extrapyramidal symptoms of both hypo kinetic and dystonic patients. For short periods of time symptoms could also be controlled with scopolamine and amphetamine. BAL and calcium EDTA prove ineffective.

[Gosselin et al: Clinical Toxicology of Commercial Products.]

SECTION 5 Firefighting measures

Extinguishing media

- ▶ There is no restriction on the type of extinguisher which may be used.
- ▶ Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
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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.
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	▶ Prevent, by any means available, spillage from entering drains or water courses. ▶ Use fire fighting procedures suitable for surrounding area.
Fire/Explosion Hazard	▶ Non combustible. ▶ Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of: hydrogen chloride nitrogen oxides (NOx) phosphorus oxides (POx) sulfur oxides (SOx) metal oxides May emit poisonous fumes. May emit corrosive fumes.
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. ▶ Control personal contact with the substance, by using protective equipment. ▶ Contain and absorb spill with sand, earth, inert material or vermiculite.
Major Spills	Moderate hazard. ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	▶ 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. ▶ Prevent concentration in hollows and sumps.
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

Suitable container	▶ Polyethylene or polypropylene container. ▶ Packing as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
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	ferrous sulfate anhydrous	Iron salts, soluble (as Fe)	1 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	manganese sulfate	Manganese, dust & compounds (as Mn)	1 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
ammonium sulfate	13 mg/m3	140 mg/m3	840 mg/m3
potassium sulfate	20 mg/m3	220 mg/m3	1,300 mg/m3
diammonium phosphate	20 mg/m3	210 mg/m3	1,300 mg/m3
potassium metabisulfite	5.4 mg/m3	59 mg/m3	360 mg/m3
calcium chloride	16 mg/m3	170 mg/m3	1,100 mg/m3
calcium chloride	12 mg/m3	130 mg/m3	790 mg/m3
calcium chloride	13 mg/m3	140 mg/m3	850 mg/m3
calcium chloride	24 mg/m3	260 mg/m3	1,600 mg/m3
magnesium sulfate, anhydrous	20 mg/m3	220 mg/m3	1,300 mg/m3
ferrous sulfate anhydrous	8.2 mg/m3	41 mg/m3	250 mg/m3
manganese sulfate	8.2 mg/m3	14 mg/m3	430 mg/m3

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Ingredient	TEEL-1	TEEL-2	TEEL-3
zinc sulfate	27 mg/m3	170 mg/m3	1,000 mg/m3
zinc sulfate	15 mg/m3	97 mg/m3	580 mg/m3
copper sulfate	7.5 mg/m3	9.9 mg/m3	59 mg/m3
Ingredient	Original IDLH	Revised IDLH	
Neutrog GOGO Juice	Not Available	Not Available	
ammonium sulfate	Not Available	Not Available	
potassium sulfate	Not Available	Not Available	
diammonium phosphate	Not Available	Not Available	
potassium metabisulfite	Not Available	Not Available	
calcium chloride	Not Available	Not Available	
magnesium sulfate, anhydrous	Not Available	Not Available	
gum xanthan	Not Available	Not Available	
ferrous sulfate anhydrous	Not Available	Not Available	
manganese sulfate	500 mg/m3	Not Available	
zinc sulfate	Not Available	Not Available	
copper sulfate	Not Available	Not Available	
water	Not Available	Not Available	

Occupational Exposure Banding		
Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
Neutrog GOGO Juice	E	≤ 0.1 ppm
ammonium sulfate	E	≤ 0.01 mg/m³
diammonium phosphate	E	≤ 0.01 mg/m³
potassium metabisulfite	E	≤ 0.01 mg/m³
calcium chloride	E	≤ 0.01 mg/m³
zinc sulfate	E	≤ 0.01 mg/m³
copper sulfate	E	≤ 0.01 mg/m³
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

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	▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream. ▶ Skin cleansing cream.

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 **computer-generated** selection:

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Material	CPI
BUTYL	A
NEOPRENE	A
VITON	A
NATURAL RUBBER	C
PVA	C

* 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.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	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)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Not Available	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	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	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Eye	There is some evidence to suggest that this material can cause eye irritation and damage in some persons.

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Chronic	There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.	
Neutrog Sudden Impact for Roses - Liquid	TOXICITY Not Available	IRRITATION Not Available
Neutrog GOGO Juice	TOXICITY Not Available	IRRITATION Not Available
ammonium sulfate	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Oral (Rat) LD50: 2840 mg/kg ^[2]	IRRITATION Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1]
potassium sulfate	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Oral (Rat) LD50: >2000 mg/kg ^[1]	IRRITATION Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1]
diammonium phosphate	TOXICITY dermal (rat) LD50: >5000 mg/kg ^[1] Inhalation (Rat) LC50: >5 mg/4h ^[1] Oral (Rat) LD50: >2000 mg/kg ^[1]	IRRITATION Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1]
potassium metabisulfite	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Oral (Rat) LD50: 1420 mg/kg ^[1]	IRRITATION Eye: adverse effect observed (irreversible damage) ^[1] Skin: adverse effect observed (irritating) ^[1]
calcium chloride	TOXICITY dermal (rat) LD50: 2630 mg/kg ^[2] Oral (Rabbit) LD50: 500-1000 mg/kg ^[1]	IRRITATION Eye (unknown): severe* [IC1] Eye: adverse effect observed (irritating) ^[1] Skin (unknown): moderate* Skin: no adverse effect observed (not irritating) ^[1]
magnesium sulfate, anhydrous	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Oral (Rat) LD50: >2000 mg/kg ^[1]	IRRITATION Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1]
gum xanthan	TOXICITY Not Available	IRRITATION Not Available
ferrous sulfate anhydrous	TOXICITY dermal (rat) LD50: >881 mg/kg ^[1] Inhalation (Rat) LC50: >0.3 mg/4h ^[1] Oral (Rat) LD50: >139<558 mg/kg ^[1]	IRRITATION Eye: adverse effect observed (irritating) ^[1] Skin: adverse effect observed (irritating) ^[1]
manganese sulfate	TOXICITY Inhalation (Rat) LC50: >4.45 mg/4h ^[1] Oral (Rat) LD50: 2150 mg/kg ^[2]	IRRITATION Skin: no adverse effect observed (not irritating) ^[1]
zinc sulfate	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Oral (Mouse) LD50: 200 mg/kg ^[2]	IRRITATION Eye: adverse effect observed (irreversible damage) ^[1] Skin: no adverse effect observed (not irritating) ^[1]
copper sulfate	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Oral (Rat) LD50: 300 mg/kg ^[2]	IRRITATION Not Available
water	TOXICITY Oral (Rat) LD50: >90000 mg/kg ^[2]	IRRITATION Not Available

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

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AMMONIUM SULFATE	For ammonium sulfate: Acute toxicity: Ammonium sulfate has relatively low acute toxicity. In healthy humans, inhaling high concentrations caused mild reduction in lung function. Animal testing has not shown ammonium sulfate to cause irritation to the skin and eyes. There is no available data on sensitization. Repeat dose toxicity: Testing in animals has not shown any chronic toxic effects, except for diarrhoea.
POTASSIUM SULFATE	For sodium sulfate: The acute toxicity of sodium sulfate has not been established, but existing data indicate very low acute toxicity. Very high doses cause severe diarrhea. Sodium sulfate is not irritating to the skin, and only slightly irritating to the eyes. It is highly unlikely to cause sensitizing effects. There is no data regarding genetic toxicity except for a single negative test.
POTASSIUM METABISULFITE	The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
CALCIUM CHLORIDE	For calcium: Toxicity from calcium is not common, because the gastrointestinal tract normally limits the amount of calcium absorbed. Therefore, short-term intake of large amounts of calcium does not generally produce any ill effects aside from constipation and an increased risk of kidney stones. However, more severe toxicity can occur when excess calcium is ingested over long periods, or when calcium is combined with increased amounts of vitamin D, which increases calcium absorption. Calcium toxicity is also found sometimes after excessive administration of calcium via a vein. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
MAGNESIUM SULFATE, ANHYDROUS	Intravenous (woman) LDLo: 80 mg/kg/2m-l
GUM XANTHAN	Evaluation of workers exposed to xanthan gum dust found evidence of a link to respiratory symptoms.. On May 20, 2011, the FDA issued a press release about SimplyThick, a food-thickening additive containing xanthan gum as the active ingredient, warning parents, caregivers and health care providers not to feed SimplyThick, a thickening product, to premature infants[. The concern is that the product may cause premature infants to suffer necrotizing enterocolitis. According to a 2017 safety review by a scientific panel of the European Food Safety Authority (EFSA), xanthan gum (European food additive number E 415) is extensively digested during intestinal fermentation, and causes no adverse effects, even at high intake amounts. The EFSA panel found no concern about genotoxicity from long-term consumption. EFSA concluded that there is no safety concern for the general population when xanthan gum is consumed as a food additive. Xanthan gum (E 415) can be regarded as non-toxic based on the results of acute oral toxicity studies. From short-term and subchronic toxicity studies, no toxicological relevant changes were reported apart from a decrease in red blood cell count and haemoglobin concentration in dogs receiving 2,000 mg/kg body weight (bw) per day for 12 weeks. This effect was marginal and it was not reproduced in a dog chronic toxicity study at 1,000 mg/kg bw per day, the highest dose tested. The EFSA Panel noted that decreased total serum cholesterol was frequently reported. For genotoxicity, insufficient experimental data were available. However, taking into account the information on structure/activity relationships and considering that xanthan gum has a molecular weight far above the threshold for absorption, according to absorption, distribution, metabolism, and excretion (ADME) data, it was not degraded in the intestine and is slightly fermented to non-hazardous short-chain fatty acids by the gut microbiota, the Panel concluded that xanthan gum (E 415) does not give rise to concerns for genotoxicity. In chronic and long-term studies, no adverse effects, including biochemical and haematological parameters, were reported in dogs and rats. From a human study with repeated intake ranging from 10.4 to 12.9 g of xanthan gum per day (assuming a body weight of 70 kg corresponding to 149?184 mg/kg bw per day), it was reported that xanthan gum acts as a bulk laxative causing no adverse dietary nor physiological effects. The only effects observed were moderate (10%) reduction in serum cholesterol (p<0.05) and a significant increase in faecal bile acid concentrations (p<0.05). A study investigating the effect of repeated intake of 15 g xanthan gum/day (assuming a bodyweight of 70 kg corresponding to 214 mg/kg bw per day) on colonic function showed significant increases in stool output (p<0.01), frequency of defecation (p<0.05) and flatulence (p<0.01) due to the ingestion of the xanthan gum. In clinical studies involving infants, the Panel noted that consumption of xanthan gum in infant formula or formula for special medical purposes in infant was well tolerated, did not influence minerals (Ca, P, Mg), fat and nitrogen balance and did not affect growth characteristics up to concentration of 1,500 mg/L (232 mg/kg bw per day). These results were supported by the outcome of the post-marketing surveillance with formulae containing xanthan gum at a concentration of approximately 750 mg/L of reconstituted formula.
ZINC SULFATE	Oral (human) TDLo: 45 mg/kg/7d-C Eye (rabbit): 0.42 mg moderate Oral (man) TDLo: 180 mg/kg/6w-l Equivocal tumorigenic agent by RTECS criteria. for zinc sulfate heptahydrate Sleep, ataxia, respiratory stimulation, somnolence, coma, diarrhoea, changes in endocrine pancreas recorded. Exposure may produce irreversible effects*. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.
COPPER SULFATE	For copper sulfate Copper sulfate is corrosive. Side effects are diverse and multi-systemic, and include severe gastrointestinal symptoms and signs, metallic taste in the mouth, burning pain in the chest, headache, sweating, shock and damage to brain, liver and kidneys. It has been reported as a cause of human suicide. On exposure, it can cause dose dependent damage to the skin and eye, also, eczema and allergic reactions.
AMMONIUM SULFATE & DIAMMONIUM PHOSPHATE & POTASSIUM METABISULFITE & COPPER SULFATE	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.
DIAMMONIUM PHOSPHATE & POTASSIUM METABISULFITE & GUM XANTHAN & WATER	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

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Neutrog Sudden Impact for Roses - Liquid	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Neutrog GOGO Juice	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
ammonium sulfate	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	0.29-0.53mg/L	4
	NOEC(ECx)	216h	Fish	0.064mg/L	4
	EC50	48h	Crustacea	52-67mg/L	4
potassium sulfate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	1430-2900mg/l	2
	EC50	48h	Crustacea	890mg/l	1
	LC50	96h	Fish	510-880mg/l	4
	EC50	96h	Algae or other aquatic plants	1742.5mg/L	4
	NOEC(ECx)	1h	Algae or other aquatic plants	0.014mg/L	4
diammonium phosphate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	1.32mg/L	2
	NOEC(ECx)	72h	Algae or other aquatic plants	100mg/l	2
potassium metabisulfite	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	43.8mg/l	2
	ErC50	72h	Algae or other aquatic plants	487.9mg/l	2
	EC50	48h	Crustacea	89mg/l	2
	LC50	96h	Fish	147-215mg/l	2
	NOEC(ECx)	504h	Crustacea	>10mg/l	2
	EC50	96h	Algae or other aquatic plants	48mg/l	2
calcium chloride	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	0h	Fish	8.879mg/L	4
	LC50	96h	Fish	3mg/l	1
	EC50	72h	Algae or other aquatic plants	2900mg/l	2
	EC50	48h	Crustacea	52mg/l	1
	EC50	96h	Algae or other aquatic plants	1109.9mg/L	4
magnesium sulfate, anhydrous	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	2700mg/l	1
	EC50	48h	Crustacea	266.4-417.3mg/l	4
	LC50	96h	Fish	33-50mg/l	4
	EC0(ECx)	72h	Algae or other aquatic plants	220mg/l	1
gum xanthan	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	320-560mg/L	4
ferrous sulfate anhydrous	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	672h	Fish	<2-3.5	7
	EC50	48h	Crustacea	6.15-9.26mg/l	4
	LC50	96h	Fish	0.41mg/L	4
	NOEC(ECx)	48h	Algae or other aquatic plants	<0.001mg/L	4
manganese sulfate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	61mg/l	2
	EC50	48h	Crustacea	7.09-9.36mg/l	4

Continued...

Neutrog Sudden Impact for Roses - Liquid

	LC50	96h	Fish	0.19-12.49mg/l	4
	EC50	96h	Algae or other aquatic plants	25.7mg/L	4
	NOEC(ECx)	1440h	Crustacea	0.01mg/l	2
zinc sulfate	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1344h	Fish	59-112	7
	EC50	72h	Algae or other aquatic plants	0.01-0.122mg/l	4
	EC50	48h	Crustacea	0.06mg/L	4
	LC50	96h	Fish	<0.001mg/L	4
	EC50	96h	Algae or other aquatic plants	0.01mg/L	4
	EC20(ECx)	72h	Algae or other aquatic plants	0.001-0.075mg/l	4
copper sulfate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	<0.001mg/L	4
	EC50	48h	Crustacea	0.001mg/L	2
	LC50	96h	Fish	<0.001mg/L	4
	EC50	96h	Algae or other aquatic plants	0.011mg/L	4
	NOEC(ECx)	384h	Fish	<0.001mg/L	4
water	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ammonium sulfate	HIGH	HIGH
magnesium sulfate, anhydrous	HIGH	HIGH
ferrous sulfate anhydrous	HIGH	HIGH
zinc sulfate	HIGH	HIGH
copper sulfate	HIGH	HIGH
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
ammonium sulfate	LOW (LogKOW = -2.2002)
magnesium sulfate, anhydrous	LOW (LogKOW = -2.2002)
ferrous sulfate anhydrous	LOW (BCF = 52)
zinc sulfate	LOW (BCF = 112)
copper sulfate	LOW (LogKOW = -2.2002)

Mobility in soil

Ingredient	Mobility
ammonium sulfate	LOW (Log KOC = 6.124)
magnesium sulfate, anhydrous	LOW (Log KOC = 6.124)
ferrous sulfate anhydrous	LOW (Log KOC = 6.124)
zinc sulfate	LOW (Log KOC = 6.124)
copper sulfate	LOW (Log KOC = 6.124)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	- 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. - Recycle wherever possible. - Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. - Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material). - Decontaminate empty containers.
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SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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
Neutrog GOGO Juice	Not Available
ammonium sulfate	Not Available
potassium sulfate	Not Available
diammonium phosphate	Not Available
potassium metabisulfite	Not Available
calcium chloride	Not Available
magnesium sulfate, anhydrous	Not Available
gum xanthan	Not Available
ferrous sulfate anhydrous	Not Available
manganese sulfate	Not Available
zinc sulfate	Not Available
copper sulfate	Not Available
water	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Neutrog GOGO Juice	Not Available
ammonium sulfate	Not Available
potassium sulfate	Not Available
diammonium phosphate	Not Available
potassium metabisulfite	Not Available
calcium chloride	Not Available
magnesium sulfate, anhydrous	Not Available
gum xanthan	Not Available
ferrous sulfate anhydrous	Not Available
manganese sulfate	Not Available
zinc sulfate	Not Available
copper sulfate	Not Available
water	Not Available

SECTION 15 Regulatory information

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

Neutrog GOGO Juice is found on the following regulatory lists

Not Applicable

ammonium sulfate is found on the following regulatory lists

- Australian Inventory of Industrial Chemicals (AIIC)
- FEI Equine Prohibited Substances List - Banned Substances
- FEI Equine Prohibited Substances List (EPSL)

potassium sulfate is found on the following regulatory lists

- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4
- Australian Inventory of Industrial Chemicals (AIIC)

diammonium phosphate is found on the following regulatory lists

- Australian Inventory of Industrial Chemicals (AIIC)

potassium metabisulfite 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 4
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Neutrog Sudden Impact for Roses - Liquid

Australian Inventory of Industrial Chemicals (AIIC)
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

calcium chloride is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australian Inventory of Industrial Chemicals (AIIC)

magnesium sulfate, anhydrous is found on the following regulatory lists

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 3
Australian Inventory of Industrial Chemicals (AIIC)
FEI Equine Prohibited Substances List - Controlled Medication
FEI Equine Prohibited Substances List (EPSL)

gum xanthan is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

ferrous sulfate anhydrous 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 2
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4
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)

manganese sulfate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australian Inventory of Industrial Chemicals (AIIC)

zinc sulfate 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 4
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
Australian Inventory of Industrial Chemicals (AIIC)

copper sulfate 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 4
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)

water is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (ammonium sulfate; potassium sulfate; potassium metabisulfite; calcium chloride; magnesium sulfate, anhydrous; gum xanthan; manganese sulfate; zinc sulfate; copper sulfate; water)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (potassium metabisulfite)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (manganese sulfate)
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	23/12/2022
Initial Date	29/06/2017

SDS Version Summary

Version	Date of Update	Sections Updated
3.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

Continued...

Neutrog Sudden Impact for Roses - Liquid

Version	Date of Update	Reasons for Update
		Updated due to GHS Revision change.

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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