SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier
Product form Mixtures
Trade name Aphicide Plus
Product code 100ml 33323 (6001379100524)
Registration Number L8780 / N-AR1162
SDS Number 000005

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

1.1.1. Relevant identified uses
Main use category Insecticide – Plant Protection Product
Industrial/Professional use spec Home and Garden.
Use of the substance/mixture Insecticide.

1.1.2. Uses advised against
See product label for restrictions.

1.3. Details of the supplier of the safety data sheet
Agro-Serve (Pty) Ltd trading as Efekto
15 Diesel Road, Isando, 1600, South Africa
P.O. Box 652147, Benmore, 2010, South Africa
Telephone +27 11 (011) 287 5700
Email info@efekto.co.za
Website www.efekto.co.za

1.4. Emergency telephone number

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation/Company</th>
<th>Address</th>
<th>Emergency number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>Griffon Poisons Centre</td>
<td></td>
<td>082 446 8946</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity: Category 4: H302 Harmful if swallowed.
Serious eye damage/eye irritation: Category 2A: H319
Specific target organ toxicity - single exposure: Category 3: H335 May cause respiratory irritation.
STOT: Category 2: H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
Acute aquatic toxicity: Category 1: H400 Very toxic to aquatic life.
Chronic aquatic toxicity: Category 1: H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms: GHS07 GHS08 GHS09
Hazardous components which must be listed on the label: * Imidacloprid
CLP Signal word: Warning
Hazard statements:
H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H361 - Suspected of damaging fertility or the unborn child.
H373 - Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:
P102 Keep out of reach of children.
P103 Read label before use
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release into the environment.
P280 - Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P281 - Use personal protective equipment as required.

Response Precautionary Statements:

P301+P312 - IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337/313 - If eye irritation persists: Get medical advice.

P314 - Get medical advice/attention if you feel unwell.

P330 - Rinse mouth.

P391 - Collect spillage.

P501 - Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

SECTION 3: Composition/information on ingredients

3.1. Substances

Suspension Concentrate (SC)

Biocidal product

3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>EC – Number</th>
<th>Conc. % by weight</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidacloprid</td>
<td>67485-29-4</td>
<td>614-073-7</td>
<td>2.0 %</td>
<td>Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)</td>
</tr>
<tr>
<td>N-1-[6-Chloro-3-pyridyl]methyl]-4,5-dihydroimidazol-2-yl</td>
<td>nitramide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol 1, 2, 3- Trihydroxypropane or 1, 2, 3- Propanetriol.</td>
<td>56-81-5</td>
<td>200-289-5</td>
<td>1.5 %</td>
<td>Not classified</td>
</tr>
<tr>
<td>Other ingredients (non-hazardous) to 100%</td>
<td></td>
<td></td>
<td></td>
<td>Balance</td>
</tr>
</tbody>
</table>

Further information

Imidacloprid | 138261-41-3 | M-Factor: 10 (acute), 10 (chronic)

For the full text of the Hazard statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General Advice

When possible, have the product container or label with you when calling a poison control centre or doctor or going for treatment.

First-aid measures after inhalation

Move the victim to fresh air and keep at rest. Call a physician or poison control centre immediately.

First-aid measures after skin contact

Immediately wash with plenty of soap and water for at least 15 minutes. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.

First-aid measures after eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.

First-aid measures after ingestion

Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

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

If large amounts are ingested, the following symptoms may occur: Dizziness, Abdominal pain, Nausea Symptoms and hazards refer to effects observed after intake of significant amounts of the active ingredient(s).

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

Treat symptomatically. Monitor: respiratory and cardiac functions. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

SECTION 5: Firefighting measures
5.1. Extinguishing media

Suitable: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable: High volume water jet.

5.2. Special hazards arising from the substance or mixture

Carbon monoxide, hydrogen fluoride, carbon dioxide, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire and/or explosion do not breathe fumes. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

5.3. Further information

Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment

Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not allow to enter soil, waterways or wastewater canal.

6.3. Methods and material for containment and cleaning up

For containment

Collect spillage.

Methods for cleaning up

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up. Avoid raising dust. Collect waste in suitable containers, which can be labelled and sealed. Dispose of absorbed material in accordance with regulations. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

For large amounts:

Sweep/shovel up.

Avoid raising dust. Collect waste in suitable containers, which can be labelled and sealed. Dispose of absorbed material in accordance with regulations. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

Other information

Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Avoid contact with skin, eyes and clothing. Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Hygiene measures

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Store in original container. Keep away from direct sunlight. Protect from freezing.

Storage temperature

>0°C <40°C

7.3. Specific end use(s)

Refer to the label and/or leaflet.

SECTION 8: Exposure controls/personal protection

Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Exposure limit(s)</th>
<th>Type of exposure limit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>0.7 mg/m3</td>
<td>TWA</td>
<td>AU NOEL</td>
</tr>
<tr>
<td>Glycerine (Inhalable mist.)</td>
<td>56-81-5</td>
<td>10 mg/m3</td>
<td>TWA</td>
<td>AU NOEL</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td>111-46-6</td>
<td>101 mg/m3</td>
<td>TWA</td>
<td>EH40/2005</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.
Appropriate engineering controls:

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Hand protection:

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material Nitrile rubber
Rate of permeability > 480 min
Glove thickness > 0.4 mm
Protective index Class 6
Directive Protective gloves complying with EN 374.

Eye protection:

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection:

Wear standard coveralls and Category 3 Type 4 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If there is a risk of significant exposure, consider a higher protective type suit.

Respiratory protection:

Wear a compressed air respirator (continuous flow) conforming to European Norm EN14594 or EN14593-1 or equivalent or a particle filter mask (protection factor 40) conforming to EN136P3 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer’s instructions regarding wearing and maintenance.

General protective measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer pack. Wearing of closed work clothing is recommended. Keep away from food, drink and animal feeding stuffs. Store work clothing separately.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>white to light beige</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined due to potential health hazard by inhalation.</td>
</tr>
<tr>
<td>Melting point / Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point or initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Flammable</td>
</tr>
<tr>
<td>Lower and upper explosion limit</td>
<td>Not explosive 92/69/EEC, A.14 / OECD 113</td>
</tr>
<tr>
<td>Flash point</td>
<td>No flash point - Determination conducted up to the boiling point.</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No decomposition if stored and handled as prescribed/indicated.</td>
</tr>
<tr>
<td>pH</td>
<td>7.0 - 8.5 at 100 % (23 °C)</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>400 - 800 mPa·s at 23 °C Velocity gradient 7.5 / s</td>
</tr>
<tr>
<td>Solubility</td>
<td>Immiscible</td>
</tr>
<tr>
<td>Partition coefficient noctanol / water (log value)</td>
<td>Imidacloprid: log Pow: 0.57</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density Solubility</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>Approx. 577 - 673 kg/m³</td>
</tr>
<tr>
<td>Particle characteristics</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
10.4. Conditions to avoid

No hazardous reactions when stored and handled according to prescribed instructions.

10.5. Incompatible materials

Extremes of temperature and direct sunlight. Store only in the original container.

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

**Acute toxicity**: Not classified

**Formulated product**

- **LD50 oral rat**: LD50 (rat) > 2,000 mg/kg
- **LD50 dermal rabbit**: LD50 (rabbit) > 4,000 mg/kg
- **LC50 inhalation rat (mg/l)**: LC50 (Rat) > 4.68 mg/l Determined in the form of dust (Actual)

**Skin irritation**: No skin irritation (Rabbit)

**Eye irritation**: No eye irritation (Rabbit)

**Sensitisation**: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test

**STOT - single exposure**

Imidacloprid: Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Imidacloprid did not cause specific target organ toxicity in experimental animal studies.

**Aspiration hazard**

Imidacloprid: Based on available data, the classification criteria are not met.

**Assessment mutagenicity**

Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Imidacloprid was not carcinogenic in lifetime feeding studies in rats and mice.

**Assessment toxicity to reproduction**

Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with imidacloprid is related to parental toxicity.

**Assessment developmental toxicity**

Imidacloprid caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with imidacloprid are related to maternal toxicity.

**Further information**

Misuse can be harmful to health.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - general:

Very toxic to aquatic life with long lasting effects.

**Formulated product**

- **LC50 fish 1**: Rainbow trout (Oncorhynchus mykiss) > 535 mg/l; Exposure time: 96 h
- **LC50 fish 2**: Golden orfe (Leuciscus idus) 237 mg/l; Exposure time: 96 h
- **EC50 Daphnia**: Water flea (Daphnia magna) > 535 mg/l; Exposure time: 24 h
- **EC50 Midge**: Non-biting midge (Chironomus riparius) 0.0552 mg/l; Exposure time: 24 h
- **ErC50 (algae) 1**: Green algae (Desmodesmus subspicatus) > 1,000 mg/l; Exposure time: 72 h
- **ErC50 (algae) 2**: Freshwater green alga (Raphidocelis subcapitata) > 100 mg/l; Exposure time: 72 h

**Bees**

- **LD50 (oral)**: 0.037 µg /bee
- **LC50 (contact)**: 0.081 µg /bee
- **Earthworm LC50 (14 days)**: 4,280 mg/kg soil
- **Birds Oral LD50**: Japanese quail 31 mg/kg
- **Birds Oral LD50**: Bobwhite quail 152 mg/kg
- **Birds LC50 (5-day diet)**: Japanese quail 392 mg/kg diet
- **Birds LC50 (20 weeks diet)**: Bobwhite quail 126 mg/kg diet

**12.2. Persistence and degradability**

**Imidacloprid**

Persistence and degradability: Not rapidly biodegradable.

**Koc**

Imidacloprid: Koc: 225

**12.3. Bioaccumulative potential**

**Imidacloprid**

Log Pow: Bioconcentration factor (BCF) 0.57 / log Pow: 0.57

Bioaccumulative potential: Does not bioaccumulate.

**12.4. Mobility in soil**

**Imidacloprid**
Ecology - soil

Moderately mobile in soils

12.5. Results of PBT and vPvB assessment

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

12.6 Other adverse effects

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container in accordance with licensed collector’s sorting instructions.

Additional information

Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Never place unused product down any indoor or outdoor drain.

Contaminated packaging

Do not re-use empty containers. Place empty container in trash. Follow advice on product label and/or leaflet.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / AND / RID

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>3082</td>
<td>3082</td>
<td>3082</td>
<td>3082</td>
<td>3082</td>
</tr>
</tbody>
</table>

14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S

Transport document description

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID MIXTURE), 9, III, (D/E), ENVIRONMENTALLY HAZARDOUS

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID MIXTURE), 9, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID MIXTURE), 9, III, ENVIRONMENTALLY HAZARDOUS

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID MIXTURE), 9, III, ENVIRONMENTALLY HAZARDOUS

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID MIXTURE), 9, III, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

9

9

9

9

9

14.4. Packing group

III

III

III

III

III

14.5. Environmental hazards

Dangerous for the environment : Yes

Dangerous for the environment : Yes Marine pollutant : Yes

Dangerous for the environment : Yes

Dangerous for the environment : Yes

Dangerous for the environment : Yes

SECTION 15: Regulatory information

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

Registration No.

L8780 / N-AR1162

Signal word:

Harmful
This chemical is a registered pesticide product and is subject to certain labelling requirements under law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label.

**Hazard statements:**
- **Do not use on edible crops.**
- **May be harmful if swallowed, inhaled or absorbed through the skin.**
- **Toxic to fish, bees and wildlife.**
- **Keep out of reach of children, uninformed persons and animals.**
- **Store in a cool place away from food, feed and eating utensils.**

**WHO-classification:**
II (Moderately hazardous)

**Classification according to GHS:**
Category 4.

**IRAC Insecticide Group Code:**
4A

15.2. Chemical safety assessment
Young people under the age of 18 are not allowed to work with the substance.

### SECTION 16: Other information

**Indication of changes:**

<table>
<thead>
<tr>
<th>Section</th>
<th>Changed item</th>
<th>Change</th>
<th>Comments</th>
</tr>
</thead>
</table>

**Full text of H- and EUH-statements:**

<table>
<thead>
<tr>
<th>H</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H373</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

<table>
<thead>
<tr>
<th>Acute Tox.: Cat. 4</th>
<th>H302</th>
<th>On basis of test data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Dam./Irrit.: Cat. 2A</td>
<td>H319</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>STOT RE: Cat. 1</td>
<td>H373</td>
<td>Calculation method.</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>H400</td>
<td>On basis of test data.</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>H410</td>
<td>Calculation method.</td>
</tr>
</tbody>
</table>


- Health - 2
- Eye Dam./Irrit. - 1
- Physical Hazard - 0
- PPE -
- 0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

**Abbreviations and acronyms**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</td>
</tr>
<tr>
<td>ADR</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Road.</td>
</tr>
<tr>
<td>ATE</td>
<td>Acute toxicity estimate.</td>
</tr>
<tr>
<td>CAS-Nr.</td>
<td>CAS-Nr. Chemical Abstracts Service number.</td>
</tr>
<tr>
<td>CEILING</td>
<td>Ceiling Limit Value.</td>
</tr>
<tr>
<td>Conc.</td>
<td>Concentration.</td>
</tr>
<tr>
<td>EC-No.</td>
<td>European community number.</td>
</tr>
<tr>
<td>ECx</td>
<td>Effective concentration to x %.</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association.</td>
</tr>
<tr>
<td>ICx</td>
<td>Inhibition concentration to x %.</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods.</td>
</tr>
<tr>
<td>LCx</td>
<td>Lethal concentration to x %.</td>
</tr>
<tr>
<td>LDx</td>
<td>Lethal dose to x %.</td>
</tr>
<tr>
<td>LOEC/LOEL</td>
<td>Lowest observed effect concentration/level.</td>
</tr>
<tr>
<td>MARPOL</td>
<td>MARPOL: International Convention for the prevention of marine pollution from ships.</td>
</tr>
<tr>
<td>N.O.S.</td>
<td>Not otherwise specified.</td>
</tr>
<tr>
<td>NOEC/NOEL</td>
<td>No observed effect concentration/level.</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development.</td>
</tr>
<tr>
<td>OES</td>
<td>Occupational Exposure Standard.</td>
</tr>
<tr>
<td>PEAK</td>
<td>PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.</td>
</tr>
<tr>
<td>RID</td>
<td>Regulations concerning the International Carriage of Dangerous Goods by Rail.</td>
</tr>
<tr>
<td>SK-SENS</td>
<td>Skin sensitisier.</td>
</tr>
<tr>
<td>SKIN_DES</td>
<td>SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.</td>
</tr>
<tr>
<td>Country:</td>
<td>RSA, NAM, BOT, ZAM, MOZ</td>
</tr>
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<tr>
<td>Language:</td>
<td>English</td>
</tr>
<tr>
<td>Version:</td>
<td>1</td>
</tr>
</tbody>
</table>

### STEL

STEL: Exposure standard - short term exposure limit (STEL): A 15-minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.

### TWA

TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

### UN

United Nations.

### WHO

World health organisation.

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End of Safety data Sheet