

GRAMOXONE SL 3.0

Version Revision Date: 4.0 05/18/2021

SDS Number: S00059061332

This version replaces all previous versions.

SECTION 1. IDENTIFICATION

Product name : GRAMOXONE SL 3.0

Design code. : A12837AM

Product Registration number : 100-1652

Manufacturer or supplier's details

Company name of supplier

Address

: Syngenta Crop Protection, LLC: Post Office Box 18300

Greensboro NC 27419

United States of America (USA)

Telephone : 1 800 334 9481

Telefax : 1 336 632 2192

Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Herbicide

Restrictions on use : Restricted Use Pesticide

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to Metals : Category 1

Acute toxicity (Oral) : Category 3

Acute toxicity (Inhalation) : Category 1

Acute toxicity (Dermal) : Category 4

Skin irritation : Category 2

Serious eye damage : Category 1

Specific target organ toxicity

- single exposure

Category 3 (Respiratory system)

Specific target organ toxicity

- repeated exposure

Category 1 (Lungs, Kidney)

GHS label elements

Hazard pictograms :









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Signal Word : Danger

Hazard Statements : H290 May be corrosive to metals.

H301 Toxic if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eve damage.

H330 Fatal if inhaled.

H335 May cause respiratory irritation.

H372 Causes damage to organs (Lungs, Kidney) through

prolonged or repeated exposure.

Precautionary Statements

Prevention:

P234 Keep only in original container.

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284 Wear respiratory protection.

Response:

P301 + P310 + P330 IF SWALLOWED: Immediately call a

POISON CENTER/ doctor. Rinse mouth.

P302 + P352 + P312 IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P314 Get medical advice/ attention if you feel unwell.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P390 Absorb spillage to prevent material damage.

Storage:

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

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Chemical name	CAS-No.	Concentration (% w/w)
paraquat dichloride	1910-42-5	43.8275
2-amino-4,5-dihydro-6-methyl-4-	27277-00-5	>= 0.1 - < 1
propyl-s-triazole-[1,5-a]pyrimidin-5-		
one		

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice Have the product container, label or Safety Data Sheet with

you when calling the emergency number, a poison control

center or physician, or going for treatment.

If inhaled Take the victim into fresh air.

If breathing is irregular or stopped, administer artificial

respiration.

Keep patient warm and at rest.

Call a physician or poison control center immediately.

In case of skin contact Take off all contaminated clothing immediately.

Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Rinse immediately with plenty of water, also under the eyelids, In case of eye contact

for at least 15 minutes. Remove contact lenses.

Immediate medical attention is required.

If swallowed SPEED IS ESSENTIAL.

Immediate medical attention is required.

If available, give an adsorbent such as activated charcoal,

bentonite or Fullers Earth.

Most important symptoms

and effects, both acute and

delayed

Inflammation of the mouth, throat and esophagus.

Gastrointestinal discomfort

Diarrhea

Notes to physician Refer to the booklet 'Paraguat Poisoning. A Practical Guide to

Diagnosis, First Aid and Hospital Treatment' (http://www4.syngenta.com/what-we-do/crops-and-

products/paraguat-safety).

Administer either activated charcoal (100g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter

for adults or 15ml/kg body weight in children).

NOTE: The use of gastric lavage without administration of an

adsorbent has not shown any clinical benefit.

Do not use supplemental oxygen.

Eye splashes from concentrated material should be treated by

an eye specialist after initial treatment.

With the possibility of late onset corneal ulceration it is advised that patients with paraquat eye injuries are reviewed

by an eye specialist the day after first presentation.

SECTION 5. FIRE-FIGHTING MEASURES



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Suitable extinguishing media Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam

or

Water spray

Unsuitable extinguishing

media

Do not use a solid water stream as it may scatter and spread

Specific hazards during fire

fighting

As the product contains combustible organic ingredients, fire

will produce dense black smoke containing hazardous

products of combustion (see section 10).

Exposure to decomposition products may be a hazard to

health.

Further information Do not allow run-off from fire fighting to enter drains or water

Cool closed containers exposed to fire with water spray.

Special protective equipment:

for fire-fighters

Wear full protective clothing and self-contained breathing

apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

tive equipment and emer-

gency procedures

Personal precautions, protec: Refer to protective measures listed in sections 7 and 8.

Environmental precautions Prevent further leakage or spillage if safe to do so.

> Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for

containment and cleaning up

Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents.

Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling Avoid contact with skin and eyes.

> When using do not eat, drink or smoke. For personal protection see section 8.

Spray solutions should not be mixed, stored or applied in containers other than plastic, plastic-lined steel, stainless steel

or fiberglass.

Conditions for safe storage No special storage conditions required.

Keep containers tightly closed in a dry, cool and well-

ventilated place.

Keep out of the reach of children.

Keep away from food, drink and animal feedingstuffs.



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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
paraquat dichloride	1910-42-5	TWA (inhal- able fraction)	0.01 mg/m3	Syngenta
		TWA (Respirable)	0.1 mg/m3	NIOSH REL
		TWA (Respirable dust)	0.5 mg/m3	OSHA Z-1
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		TWA (Inhal- able particu- late matter)	0.05 mg/m3 (the cation)	ACGIH
2-amino-4,5-dihydro-6-methyl- 4-propyl-s-triazole-[1,5- a]pyrimidin-5-one	27277-00-5	TWA	0.02 mg/m3	Syngenta

Engineering measures

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards

Seek additional occupational hygiene advice.

Personal protective equipment

Respiratory protection

Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide

adequate protection.

Hand protection

Remarks : Wear protective gloves. The choice of an appropriate glove

does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and



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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. The break through time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Eye protection : Tightly fitting safety goggles

Always wear eye protection when the potential for inadvertent

eye contact with the product cannot be excluded.

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to

the specific work-place.

Remove and wash contaminated clothing before re-use.

Wear as appropriate: Impervious clothing

Protective measures : The use of technical measures should always have priority

over the use of personal protective equipment. When selecting personal protective equipment, seek

appropriate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : dark green

Odor : No data available

Odor Threshold : No data available

pH : 3-7

Concentration: 1 % w/v

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : Method: Pensky-Martens closed cup

does not flash

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapor pressure : No data available

Relative vapor density : No data available



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Density 1.11 - 1.15 g/cm3 (68 °F / 20 °C)

Solubility(ies)

Water solubility No data available

Solubility in other solvents No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature

> 1202 °F / > 650 °C

Decomposition temperature No data available

Viscosity

Viscosity, dynamic No data available

Viscosity, kinematic No data available

Explosive properties Not explosive

Oxidizing properties The substance or mixture is not classified as oxidizing.

Particle size No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity See section "Possibility of hazardous reactions".

Chemical stability Stable under normal conditions. Possibility of hazardous reac-

tions

Corrosive in contact with metals

No decomposition if used as directed. Conditions to avoid

Incompatible materials Aluminum Mild steel

Iron

Hazardous decomposition

products

No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inaestion Inhalation Skin contact Eye contact

Acute toxicity

Product:

Acute oral toxicity Acute toxicity estimate: 172.81 mg/kg

Method: Calculation method

Acute toxicity estimate: 0.0114 mg/l Acute inhalation toxicity

Exposure time: 4 h

Test atmosphere: dust/mist



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Method: Calculation method

Assessment: The substance/mixture is not toxic on inhalation

as defined by dangerous goods regulations.

Acute dermal toxicity : Acute toxicity estimate: 1,990 mg/kg

Method: Calculation method

Components:

paraquat dichloride:

Acute oral toxicity : LD50 (Rat, female): Calculated 76 mg/kg

Acute inhalation toxicity : LC50 (Rat): Calculated 0.0002 - 0.0007 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The component/mixture is extremely toxic after

short term inhalation.

Acute dermal toxicity : LD50 (Rat): Calculated 872 mg/kg

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Acute oral toxicity : LD50 (Rat): 100 - 150 mg/kg

Remarks: Powerful emetic in humans at 0.03 - 0.11mg/kg. Symptoms include nausea, dizziness, flushing and vomiting.

The half-life in humans is 1.5 - 3.5 hours.

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

Components:

paraquat dichloride:

Result : Irritating to skin.

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Species : Rabbit

Result : No skin irritation

Serious eye damage/eye irritation

Components:

paraquat dichloride:

Result : Risk of serious damage to eyes.

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Species : Rabbit

Result : No eye irritation



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Respiratory or skin sensitization

Components:

paraquat dichloride:

Result : Did not cause sensitization on laboratory animals.

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Species : Guinea pig

Result : Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Components:

paraquat dichloride:

Germ cell mutagenicity -

Animal testing did not show any mutagenic effects.

Assessment

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Germ cell mutagenicity - : Animal testing did not show any mutagenic effects., In vitro

Assessment tests did not show mutagenic effects

Carcinogenicity

Components:

paraquat dichloride:

Carcinogenicity - Assess-

nent

No evidence of carcinogenicity in animal studies.

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Carcinogenicity - Assess-

ment

: No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Components:

paraquat dichloride:

Reproductive toxicity - As-

No toxicity to reproduction

sessment

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Reproductive toxicity - As-

: No toxicity to reproduction

sessment

STOT-single exposure

Components:

paraquat dichloride:

Assessment : The substance or mixture is classified as specific target organ

toxicant, single exposure, category 3 with respiratory tract

irritation.



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STOT-repeated exposure

Components:

paraquat dichloride:

Target Organs : Lungs, Kidney

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 1.

Repeated dose toxicity

Components:

paraquat dichloride:

Remarks : Ocular effects (cataracts) have been reported following long

term oral exposure of laboratory animals.

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Remarks : No adverse effect has been observed in chronic toxicity tests.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

paraquat dichloride:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): Calculated 24

mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): Calculated 2.65 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)):

Calculated 0.26 mg/l Exposure time: 96 h

NOEC (Raphidocelis subcapitata (freshwater green alga)):

Calculated 0.02 mg/l End point: Growth rate Exposure time: 96 h

ErC50 (Navicula pelliculosa (Freshwater diatom)): Calculated

0.00044 mg/l Exposure time: 96 h

NOEC (Navicula pelliculosa (Freshwater diatom)): Calculated

0.00028 mg/l

End point: Growth rate Exposure time: 96 h



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M-Factor (Acute aquatic tox-

city)

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

M-Factor (Chronic aquatic

toxicity)

NOEC (Daphnia magna (Water flea)): estimated 0.15 mg/l

Exposure time: 21 d

100

1,000

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 74

mg/

Exposure time: 72 h

NOEC (Raphidocelis subcapitata (freshwater green alga)):

12.5 mg/

End point: Growth rate Exposure time: 72 h

Persistence and degradability

Components:

paraquat dichloride:

Stability in water : Degradation half life: > 30 d

Remarks: Persistent in water.

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

Components:

paraquat dichloride:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: -4.5 (68 °F / 20 °C)

Mobility in soil

Components:

paraquat dichloride:

Distribution among environ-

mental compartments

: Remarks: immobile

Stability in soil : Dissipation time: 20 y

Percentage dissipation: 50 % (DT50)

Remarks: Persistent in soil.



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Other adverse effects

Components:

paraquat dichloride:

Results of PBT and vPvB

assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

2-amino-4,5-dihydro-6-methyl-4-propyl-s-triazole-[1,5-a]pyrimidin-5-one:

Results of PBT and vPvB

assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with

chemical or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or

incineration.

If recycling is not practicable, dispose of in compliance with

local regulations.

Contaminated packaging : Empty remaining contents.

Triple rinse containers.

Empty containers should be taken to an approved waste

handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 2922

Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.

856

(PARAQUAT DICHLORIDE)

Class : 8
Subsidiary risk : 6.1
Packing group : III
Labels : 8 (6.1)

IATA-DGR

UN/ID No. : UN 2922

Proper shipping name : Corrosive liquid, toxic, n.o.s.

(PARAQUAT DICHLORIDE)

Class : 8
Subsidiary risk : 6.1
Packing group : III

Labels : Corrosive, Toxic

Packing instruction (cargo

aircraft)

Packing instruction (passen- : 852

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ger aircraft)

IMDG-Code

UN number : UN 2922

Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.

(PARAQUAT DICHLORIDE)

Class : 8
Subsidiary risk : 6.1
Packing group : III
Labels : 8 (6.1)
EmS Code : F-A, S-B
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 2922

Proper shipping name : Corrosive liquids, toxic, n.o.s.

(PARAQUAT DICHLORIDE)

Class : 8
Subsidiary risk : 6.1
Packing group : III

Labels : CORROSIVE, TOXIC

ERG Code : 154 Marine pollutant : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide 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 as required on the pesticide label:

Danger

poison

May be fatal if swallowed.

Fatal if inhaled.

Do not breathe mist.

Causes substantial but temporary eye injury.

Harmful if absorbed through skin.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove and wash contaminated clothing before re-use.

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
sodium hydroxide	1310-73-2	1000	*



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SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ Calculated product R	
		(lbs)	(lbs)
paraquat dichloride	1910-42-5	10	22

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components	CAS-No.	Component TPQ (lbs)
paraquat dichloride	1910-42-5	10000
paraquat dichloride	1910-42-5	10*

^{*:} Solid in the molten or powdered form (particles < 100 microns), in solution, or meeting the NFPA reactivity criteria

SARA 311/312 Hazards : Corrosive to Metals

Acute toxicity (any route of exposure)

Specific target organ toxicity (single or repeated exposure)

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

paraquat dichlo- 1910-42-5 >= 30 - < 50 %

ride

The ingredients of this product are reported in the following inventories:

TSCA : On or in compliance with the active portion of the TSCA

inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

^{*:} Calculated RQ exceeds reasonably attainable upper limit.

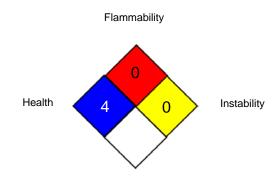


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NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA PO : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

1910.1000

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

ACGIH / TWA : 8-hour, time-weighted average

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

OSHA P0 / TWA : 8-hour time weighted average OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC -International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office



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of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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