SAFETY DATA SHEET

Revision Date 03/03/2015 Print Date 09/10/2015

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Ivermectin

Product Number : IV1001, IV1002 CAS Number : 70288-86-7

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Gojira Fine Chemicals

5386 Majestic Parkway, Suite 7 Bedford Heights, OH 44146 USA

Telephone : 440-252-5397

Email : docsupport@gojirafc.com

Fax : 888-211-5523

1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 (Chem-Trec)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 1), H300 Carcinogenicity (Category 2), H351 Reproductive toxicity (Category 1B), H360

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H300 Fatal if swallowed.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and

understood.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P281 Use personal protective equipment as required.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/

physician.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P321 Specific treatment (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Component		Classification	Concentration	
Ivermectin				
CAS-No.	70288-86-7	Acute Tox. 1; H300	>= 90 - <= 100	
EC-No.	274-536-0		%	
Ethanol			1	
CAS-No.	64-17-5	Flam. Liq. 2; H225	<= 5 %	
EC-No.	200-578-6			
Index-No.	603-002-00-5			
Formamide Included in the Regulation (EC) No. 1907/2		es of Very High Concern (SVHC)	according to	
CAS-No.	75-12-7	Carc. 2; Repr. 1B; STOT RE	< 3 %	
EC-No.	200-842-0	2; H351, H360, H373		
Index-No.	616-052-00-8	·		
Registration number	01-2119496064-35-XXXX			

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx)

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWA	1,000.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation		
		Confirmed animal carcinogen with unknown relevance to humans		
		TWA	1,000 ppm	USA. OSHA - TABLE Z-1 Limits for
			1,900 mg/m3	Air Contaminants - 1910.1000
		TWA	1,000 ppm 1,900 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		mate.
		TWA	1,000.000000	USA. Occupational Exposure Limits
			ppm	(OSHA) - Table Z-1 Limits for Air
			1,900.00000	Contaminants
			0	
		The value in mg/m3 is approximate.		

		TWA	1,000.000000 ppm 1,900.00000	USA. NIOSH Recommended Exposure Limits
		STEL	1,000.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
			iratory Tract irritation	on with unknown relevance to humans
Formamide	75-12-7	TWA	10.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Eye irritation Liver damag Kidney dama Skin irritation Danger of cu	ie age	n
		TWA	10.000000 ppm 15.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		Potential for dermal absorption		

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties 9.1

Form: solid a) Appearance b) Odour No data available c) Odour Threshold No data available d) рΗ No data available Melting point/freezing No data available point

Initial boiling point and f) boiling range

No data available

Flash point g)

No data available

Evaporation rate Flammability (solid, gas) No data available i)

No data available

Upper/lower flammability or

No data available

explosive limits Vapour pressure

Vapour density I)

No data available No data available

m) Relative density

No data available

Water solubility Partition coefficient: nNo data available

octanol/water

No data available

p) Auto-ignition temperature No data available

Decomposition temperature

No data available

r) Viscosity No data available **Explosive properties**

No data available

Oxidizing properties

No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 **Chemical stability**

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

Conditions to avoid 10.4

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a

known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Blood - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Ethanol)

Blood - Irregularities - Based on Human Evidence (Formamide)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

Mobility in soil 12.4

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2811 Class: 6.1 Packing group: II Proper shipping name: Toxic solids, organic, n.o.s. (Ivermectin)

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG

UN number: 2811 Class: 6.1 Packing group: II EMS-No: F-A, S-A

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Ivermectin)

IATA

UN number: 2811 Class: 6.1 Packing group: II Proper shipping name: Toxic solid, organic, n.o.s. (Ivermectin)

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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Massachusetts Right To Know Components

	CAS-No.	Revision Date
Ethanol	64-17-5	2007-03-01
Formamide	75-12-7	1994-04-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Ivermectin	70288-86-7	
Ethanol	64-17-5	2007-03-01
Formamide	75-12-7	1994-04-01

New Jersey Right To Know Components

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	CAS-No.	Revision Date
Ivermectin	70288-86-7	
Ethanol	64-17-5	2007-03-01
Formamide	75-12-7	1994-04-01

Water 7732-18-5

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity
Carc. Carcinogenicity
Flam. Liq. Flammable liquids

H225 Highly flammable liquid and vapour.

H300 Fatal if swallowed.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs (/\$/*_ORG_REP_ORAL/\$/) through prolonged or

repeated exposure if swallowed.

Repr. Reproductive toxicity

STOT RE Specific target organ toxicity - repeated exposure

HMIS Rating

Health hazard: 4
Chronic Health Hazard: *
Flammability: 0
Physical Hazard 0

NFPA Rating

Health hazard: 3
Fire Hazard: 0
Reactivity Hazard: 0

Further information

The above information is believed to be accurate and represents the best information currently available to Gojira Fine Chemicals. However, we make no warranty or merchantability or any other warranty, express or Implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Gojira Fine Chemicals be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Gojira Fine Chemicals has been advised of the possibility of such damages.