1. Identification of the Substance/Preparation and of the Company / Undertaking

MSDS compliant with regulations – (EC) No 1907/2006 (REACH), (EC) No 1272/2008 (CLP)

1.1: Identification of the substance/mixture and of the company/undertaking

Product Identifier…….	preperation
Reach Registration number……..	No information available
Product name……..	Tivolin
Product code……	No information available
Product type…….	Adjuvant
EC-No. ……	No information available
Formular……	No information available

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

Identified uses …….	Wetting Agent
Main use category……...	Agrochemical

1.3: Company/undertaking identification

Supplier……	Merhav Agro Ltd
Company role……..	Plant protection products.
Company telephone number……	+972-8-6308000
Company fax number……..	+972-8-6308001
Company contact person……...	agro@gadot.com, www.gadotagro.com

2. Hazards Identification

2.1. classification of the substance or mixture

This substance is classified as dangerous

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Flammable liquid
Specific target organ toxicity - single exposure (Category 2)

2.2. Label elements

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

Pictogram……..

Signal word……	Danger
Hazard statement(s)	
H225	Highly flammable liquid and vapour
H318	Causes serious eye demege.
H336	May cause drowsiness or dizziness

H412	Harmful to aquatic life with long lastin effects

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
P261	Avoid breathing vapours.
P273	Avoide release to the environment.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents or container to an approved site in accordance with national regulations. Licensing of Businesses Regulations (Disposal of Hazardous Wastes)
Supplemental Hazard Statements	none

2.3. Other hazards – none

3. Composition/Information on Ingredients

3.1 Mixtures

Synonyms	Tivolin
Formula	N/A
Molecular Weight	N/A

Dangerous Component		Classification	concentration
Isopropyl Alcohol			
CAS-No.	67-63-0	H225, H319, H336	Less then 18%
EC-No.	200-661-7		
Annex I number			
Oleic Acid			
CAS-No.	112-80-1	H319, H315,H314	Less then 6%
EC-No.	204-007-1		
Annex I number			
N.P. 9			
CAS-No.	37205-87-1	H318, H336,H412	More then 70%
EC-No.	09-346-2		
Annex I number			

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.

Eye Contact.....	Immediately flush eyes for a minimum of 15 minutes, occasionally lifting the lower and upper lids. Get medical attention promptly.
Skin Contact.....	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Inhalation.....	Remove exposed person to fresh air using protective equipment. If breathing has stopped, perform artificial respiration. Get medical attention promptly
Ingestion.....	Do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Call physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation. Inflammation of the eye is characterized by redness, watering, and itching.

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. Fire-Fighting 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
None known.

5.3 Advice for firefighters
Explosive in the form of vapor when exposed to heat or flame. Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition it emits acrid smoke and irritating fumes. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME

5.4 Further information
N/A

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13)

6.4 Reference to other sections
For disposal see section 13.

7. Handling And Storage

7.1. Handling

Handling.....	Handle in fully grounded, properly designed and approved containers and equipment systems. Control temperature in shipping and handling to recommended levels. Keep away from welding operations, sparks, flames or other ignition sources. No smoking or open flame in storage, use or handling areas. Provide local and general exhaust ventilation to effectively remove and prevent build up

	of any heated vapours or mists generated from the handling of this product. Avoid skin and eye contact. Wear suitable protective equipment including impervious gloves and eye protection. After handing, always wash hands thoroughly with soap and water.
Handling temperatures.....	No information available

7.2. storage

Storage.....	Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain product residue, which could produce flammable or explosive vapours. Properly labelled containers.

7.3. special use(s) and requirements

Product transfer/packing requirement.	While loading, unloading, tank gauging, etc., remain upwind. Request assistance of safety and industrial hygiene personnel to determine air concentrations. Know the location of eye wash stations and safety showers.
Recommended materials.....	No information available
Unsuitable materials.....	No information available

8. Exposure Controls / Personal Protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Personal Protective Equipment:

Hand, Skin and Eye protection.....	Wear protective clothing for normal operations like coveralls, flame retardant clothing (with legs over boots), gloves. Safety glasses, chemical goggles or face shield as

	appropriate.
Respiratory Protection.....	No information available
Body Protection	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. Physical And Chemical Properties

9.1. general information

Appearance.....	Form: liquid
Colour.....	No information available
Odour.....	Slight alcohol-like

9.2. important health, safety and environmental information

Initial boiling point and boiling range....	82 °C (for Isopropyl Alcohol)
Flash point.....	No information available
Auto-ignition temperature.....	425,0 °C (for Isopropyl Alcohol)
Upper/lower flammability or explosive limits	Upper explosion limit: 12 %(V) (for Isopropyl Alcohol) Lower explosion limit: 2 %(V) (for Isopropyl Alcohol)
Explosion pressure.....	no data available
Vapour pressure.....	44 - 60.2 hPa @ 20 - 25 °C (for Isopropyl Alcohol)
Relative evaporation rate.....	no data available
Density.....	0.995 g/cm³ @ 20 °C (Nonylphenol, branched, ethoxylated)
Solubility in water.....	2.75 - 4.55 mg/L @ 2 - 20.5 °C (Nonylphenol, branched, ethoxylated)
n-octanol/water partition coefficient (log pow).....	0.05 @ 25 °C(for Isopropyl Alcohol)
Kinematic viscosity.....	4.619 mPa.s(for Isopropyl Alcohol)
Surface tension.....	55.92 mN/m @ 340 µg/L and 20 °C (Nonylphenol, branched, ethoxylated)
Volatile organic carbon content.....	no data available
Molecular mass.....	No information available
PH.....	no data available

10. Stability And Reactivity

10.1 Reactivity
no data available

10.2 Chemical stability
This material is stable when handled and stored at recommended temperatures.

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to Avoid
Heat, flames and sparks. . Extremes of temperature and direct sunlight.

10.5 Incompatibilities with Other Materials
no data available

10.6 Hazardous Decomposition Products
no data available

10.7 Hazardous Polymerization
Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological Information

Acute toxicity – oral.....	LD50 5 840 mg/kg bw (rat) (for Isopropyl Alcohol)
Acute toxicity – derma.....	LD50 16.4 mL/kg bw (rabbit) (for Isopropyl Alcohol)
Acute toxicity – inhalation.....	LC50 (6 h) 10 000 ppm (rat) (for Isopropyl Alcohol)

11.1. Effects and symptoms

Symptoms/injuries after skin contact.....	Hazardous in case of skin contact (irritant)
Symptoms/injuries after inhalation.....	irritant
Symptoms/injuries after eye contact.....	Very hazardous in case of eye contact (irritant).
Carcinogenicity	no data available

11.2. other information

Hazchem code.....	3YE
Potential health effects	no data available

12. Ecological Information

12.1. Ecotoxicity.....	Predicted No-Effect Concentration (PNEC) 140.9 mg/L Marine water
12.2. Environmental Fate.....	no data available
12.3. Physical/Chemical.....	no data available
12.4. Bio accumulative potential.....	no data available

13. Disposal Considerations

13.1. ecological aspects

Ecological general.....	No information available

13.2. disposal instructions

Waste disposal.....	The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Product disposal.....	Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Container/package disposal.....	Containers or liners may retain some product residues. These material containers must be disposed of in a safe way. Dispose empty container via a licensed waste disposal contractor.
Disposal precautions.....	Use Personal Protective Equipment as per Para 8.

13.3. EU and local legislation

ISRAELI legislation - Licensing of Businesses Regulations (Disposal of Hazardous Wastes), 1990.
EU - Directive 91/689/EEC on hazardous waste

14. Transport Information

DOT Classification.....	UN1993, FLAMMABLE LIQUID, N.O.S. (Isopropyl Alcohol) , CLASS 3, PGIII
ADR.....	UN1993, FLAMMABLE LIQUID, N.O.S. (Isopropyl Alcohol) , CLASS 3, PGIII
IMDG Code.....	UN1993, FLAMMABLE LIQUID, N.O.S. (Isopropyl Alcohol) , CLASS 3, PGIII
ICAO.....	UN1993, FLAMMABLE LIQUID, N.O.S. (Isopropyl Alcohol) , CLASS 3, PGIII

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

15.2. Chemical Safety Assessment

no data available

15.3. compliancy additional legislation

ISRAELI legislation - Hazardous Substances Law, 1993, Licensing of Businesses Regulations (Disposal of Hazardous Wastes), 1990, Hazardous Substances Regulations (Import and Export of Hazardous Wastes), 1994, Licensing of Businesses Regulations (Hazardous Industrial Plants), 1993, transport services law, 1997, Licensing of Businesses Regulations (oil storage), 1976.

16. Other Information

Text of H-code(s) mentioned in Section 3

.

H225	Highly flammable liquid and vapour
H318	Causes serious eye demege
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H412	Harmful to aquatic life with long lastin effects
Other information.....	Precautionary statement(s)
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	contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents or container to an approved site in accordance with national regulations. Licensing of Businesses Regulations (Disposal of Hazardous Wastes)

Uses and restrictions.....	Handling transportation and storage
Reach references.....	Not registered
Revision date.....	11.5.2016
Revision information.....	New Addition
Other information.....	Not available

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