

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law. Issue date: 06/04/2024 Revision date: 29/08/2024 Supersedes: 06/04/2024 Version: 1.1

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

#### 1.1. Product identifier

Product form : Mixture

PRODUCT NAME : DYNE TEST SOLUTIONS NON TOXIC 26-44 DYNES/cm2(mN/m)

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

#### 1.2.1. Relevant identified uses

: Professional use Main use category

Use of the substance/mixture

Dyne Testing

#### 1.2.2. Uses advised against

No additional information available

## 1.3. Details of the supplier of the safety data sheet

Intertronics

Unit 12a Station Field Industrial Estate, Banbury Road

OX5 1JD Kidlington - Oxfordshire

United Kingdom

T +44 (0)1865 842842

orders@intertronics.co.uk - https://www.intertronics.co.uk

#### 1.4. Emergency telephone number

**Emergency number** : +44 (0)1865 842842

Office hours only.

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

## Classification according to GB CLP (SI 2019:720 as amended)

Flammable liquids, Category 3

Adverse physicochemical, human health and environmental effects

Full text of H- and EUH-statements: see section 16

No additional information available

## 2.2. Label elements

## Labelling according to GB CLP (SI 2019:720 as amended)

Hazard pictograms (GB CLP)



GHS02

Signal word (GB CLP)

Hazard statements (GB CLP) H226 - Flammable liquid and vapour.

Precautionary statements (GB CLP) P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

H226

No smoking.

P233 - Keep container tightly closed.

P240 - Ground and bond container and receiving equipment.

P241 - Use explosion-proof electrical, ventilating and lighting equipment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection and

hearing protection.

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P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .

## 2.3. Other hazards

Component		
Substance(s) not meeting the PBT criteria of UK REACH regulation, in accordance with Annex XIII	Ethyl alcohol (64-17-5)	
Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII	Ethyl alcohol (64-17-5)	
Component		
Substance(s) not included in the list established in accordance with Article 59(1) of UK REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in GB BPR and GB PPP	Ethyl alcohol(64-17-5)	

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier		Labelling according to GB CLP (SI 2019:720 as amended)
Ethyl alcohol	CAS-No.: 64-17-5 EC-No.: 200-578-6 UK Index-No.: 603-002-00-5	50 – 60	Flam. Liq. 2, H225

Full text of H- and EUH-statements: see section 16

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness

persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : May be irritating to the respiratory system. May cause drowsiness or dizziness.

Symptoms/effects after skin contact : May cause irritation to skin. Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : May cause irritation to the digestive tract.

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

Treat symptomatically.

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## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide.

Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Avoid fire-fighting water entering the

environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames.

No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Ventilate area.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. For further information refer to section 8:

"Exposure controls/personal protection".

Emergency procedures : Ventilate area. Evacuate unnecessary personnel.

## 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Absorb spillage.

Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal

binding agents). Place in a suitable container for disposal in accordance with the waste

regulations (see Section 13).

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13: "Disposal considerations".

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Additional hazards when processed Precautions for safe handling

- : Handle empty containers with care because residual vapours are flammable.
- : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Use only non-sparking tools. Do not eat, drink or smoke when using this product.

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Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

## 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond

container and receiving equipment. Use explosion-proof electrical/ventilating/lighting

equipment

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Sources of

ignition, Direct sunlight. Keep in fireproof place. Keep container tightly closed.

Incompatible products : Strong bases. Strong acids. Strong oxidizing agents. Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Heat and ignition sources : No flames, no sparks. Eliminate all sources of ignition.

: Keep only in original container.

## 7.3. Specific end use(s)

Packaging materials

No additional information available

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

## 8.1.1 National occupational exposure and biological limit values

Ethyl alcohol (64-17-5)		
United Kingdom - Occupational Exposure Limits		
Local name	Ethanol	
WEL TWA (OEL TWA) 1920 mg/m³		
	1000 ppm	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

## 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

## 8.2.1. Appropriate engineering controls

## Appropriate engineering controls:

Ensure adequate ventilation.

## 8.2.2. Personal protection equipment

## Personal protective equipment:

Avoid all unnecessary exposure. PPE compliant to the recommended EN/ISO or equivalent standards should be selected.

#### Personal protective equipment symbol(s):









## 8.2.2.1. Eye and face protection

#### Eye protection:

Chemical goggles or safety glasses

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Eye protection			
Туре	Field of application	Characteristics	Standard
Safety glasses, Safety goggles	Droplet, mist	Clear, With side shields	EN 166

#### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Wear protective gloves.

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves, Reusable gloves	Nitrile rubber (NBR)	4 (> 120 minutes)	0.5	2 (< 1.5)	EN ISO 374

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

Wear appropriate mask. Where exposure through inhalation may occur from handling or use, respiratory protection equipment is required. Exposure limits for airborne contaminants must not be exceeded.

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

#### Other information:

Do not eat, drink or smoke during use.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Liquid Appearance : Colorless liquid. Colour : Colourless. : alcoholic. Odour Odour threshold : Not available рΗ : Not available : -4 - -37 °C Melting point Freezing point : Not available : 78 °C Boiling point Flash point : 27 - 57 °C Lower explosion limit : 3.3 vol % Upper explosion limit : 19 vol % Vapour pressure : 59.5 hPa at 20 °C Vapour pressure at 50°C : Not available Relative vapour density at 20°C : Not available

Density : Not available
Solubility : completely miscible.
Partition coefficient n-octanol/water (Log Kow) : Not available
Auto-ignition temperature : 363 °C
Decomposition temperature : Not available
Viscosity, kinematic : Not available
Explosive properties : Not available

: 0.789

## 9.2. Other information

Relative density

Particle characteristics : Not applicable

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## **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

Flammable liquid and vapour. Stable at ambient temperature and under normal conditions of use.

## 10.2. Chemical stability

May form flammable/explosive vapour-air mixture.

## 10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

## 10.5. Incompatible materials

STOT-single exposure

Strong acids. Strong bases. Strong oxidizing agents.

#### 10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Acute toxicity (initialation)	. Not classified
Ethyl alcohol (64-17-5)	
LD50 oral rat	10470 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 9720 - 11380
LD50 oral	10470 mg/kg bodyweight
LD50 dermal	15800 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 99999 mg/l
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Ethyl alcohol (64-17-5)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified

STOT-repeated exposure	: Not classified
Ethyl alcohol (64-17-5)	
LOAEL (oral, rat, 90 days)	3200 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	1730 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Remarks on results: other:
Aspiration hazard	: Not classified

: Not classified

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## 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

Potential adverse human health effects and

symptoms

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

## **SECTION 12: Ecological information**

## 12.1. Toxicity

Hazardous to the aquatic environment, short-term

(acute)

: Not classified

Hazardous to the aquatic environment, long-term

: Not classified

(chronic)

Ethyl alcohol (64-17-5)	
LC50 - Fish [1]	14200 mg/l
EC50 - Crustacea [1]	> 10000 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	5012 mg/l waterflea
EC50 - Other aquatic organisms [2]	275 mg/l
EC50 96h - Algae [1]	≈ 22000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

## 12.2. Persistence and degradability

DYNE TEST SOLUTIONS NON TOXIC 26-44 DYNES/cm2(mN/m)		
Persistence and degradability Not established.		
Ethyl alcohol (64-17-5)		
Persistence and degradability Rapidly degradable		

## 12.3. Bioaccumulative potential

DYNE TEST SOLUTIONS NON TOXIC 26-44 DYNES/cm2(mN/m)		
Bioaccumulative potential Not established.		
Ethyl alcohol (64-17-5)		
Partition coefficient n-octanol/water (Log Pow) -0.32		

## 12.4. Mobility in soil

No additional information available

## 12.5. Results of PBT and vPvB assessment

Component	
	This product does not contain substances at ≥0.1% that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at ≥0.1% that meet the vPvB criteria of UK REACH regulation, annex XIII

#### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

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## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Regional waste regulation

Waste treatment methods

Product/Packaging disposal recommendations

Additional information Ecological waste information HP Code

- : Disposal must be done according to official regulations.
- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- : Handle empty containers with care because residual vapours are flammable.
- : Avoid release to the environment.
- : HP3 "Flammable:"
  - flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and  $\leq$  75 °C;
  - flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
  - flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
  - flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
  - water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
  - other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

## **SECTION 14: Transport information**

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

n accordance with ADR / IMDG / IATA / ADN / RID						
ADR	IMDG	IATA	ADN	RID		
14.1. UN number						
UN 1170	UN 1170	UN 1170	UN 1170	UN 1170		
14.2. UN proper shippin	g name					
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethanol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)		
Transport document descr	iption					
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III	UN 1170 Ethanol solution, 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III		
14.3. Transport hazard o	class(es)					
3	3	3	3	3		
3	3	3	3	3		
14.4. Packing group						
III	III	III	III	III		

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ADR	IMDG	IATA	ADN	RID	
14.5. Environmental hazards					
Dangerous for the environment: False	Dangerous for the environment: False Marine pollutant: No	Dangerous for the environment: False	Dangerous for the environment: False	Dangerous for the environment: False	
No supplementary information available					

#### 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : F1
Special provisions (ADR) : 144, 601
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP1
Portable tank and bulk container instructions (ADR) : T2
Portable tank and bulk container special provisions : TP1

(ADR)

Tank code (ADR) : LGBF
Vehicle for tank carriage : FL
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Operation (ADR) : S2
Hazard identification number (Kemler No.) : 30

Orange plates

30 1170

Tunnel restriction code (ADR) : D/E EAC code : •2YE

#### Transport by sea

Special provisions (IMDG) : 144, 223 Limited quantities (IMDG) : 5 L Excepted quantities (IMDG) : E1 : P001, LP01 Packing instructions (IMDG) : IBC03 IBC packing instructions (IMDG) Tank instructions (IMDG) : T2 : TP1 Tank special provisions (IMDG) EmS-No. (Fire) : F-E EmS-No. (Spillage) : S-D Stowage category (IMDG)

Properties and observations (IMDG) : Colourless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to

19%. Miscible with water.

MFAG-No : 127

## Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y344
PCA limited quantity max net quantity (IATA) : 10L
PCA packing instructions (IATA) : 355
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 366
CAO max net quantity (IATA) : 220L

Special provisions (IATA) : A3, A58, A180

ERG code (IATA) : 3L

Inland waterway transport

Classification code (ADN) : F1

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Special provisions (ADN) : 144, 601
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 0

#### Rail transport

Classification code (RID) : F1
Special provisions (RID) : 144, 601
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T2
Portable tank and bulk container special provisions : TP1

(RID)

Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE4
Hazard identification number (RID) : 30

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

#### **UK REACH Annex XVII (Restriction List)**

This product contains no substance(s) listed on UK REACH Annex XVII (Restriction List) equal to or above the level of SDS disclosure

#### **UK REACH Annex XIV (Authorisation List)**

This product contains no substance(s) listed on UK REACH Annex XIV (Authorisation List) equal to or above the 0.1% level of disclosure

## **UK REACH Candidate List (SVHC)**

Contains no substance(s) listed on the UK REACH Candidate List

#### **GB PIC regulation (Prior Informed Conset)**

This product contains no substance(s) listed on the GB PIC List equal to or above the level of SDS disclosure

## **POP Regulation (Persistent Organic Pollutants)**

This product contains no substance(s) listed on the GB POP List equal to or above the level of SDS disclosure

#### Ozone Regulation (S.I. No. 168 of 2015)

This product contains no substance(s) listed on the GB Ozone Depletion List equal to or above the level of SDS disclosure

#### **Control of Poisons and Explosives Precursors Act**

This product contains no substance(s) listed as a reportable poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a reportable explosive precursor on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This substance is not listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations

#### **Drug Precursors Regulation (273/2004)**

This product contains no substance(s) listed on the GB Drug Precursors List equal to or above the level of SDS disclosure

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#### 15.1.2. Other information

## 15.2. Chemical safety assessment

No additional information available

## **SECTION 16: Other information**

Indication of changes (UK)				
Section	Changed item	Comments		
	Supersedes	Added		
	Revision date	Added		
1.1	Name	Modified		
1.2	Use of the substance/mixture	Added		
1.2	Main use category	Modified		

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE

COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and

amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:		
Flam. Liq. 2	Flammable liquids, Category 2	
Flam. Liq. 3	Flammable liquids, Category 3	
H225	Highly flammable liquid and vapour.	
H226	Flammable liquid and vapour.	

Safety Data Sheet (SDS), UK

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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