MATERIAL SAFETY DATA SHEET

1. PRODUCT NAME AND COMPANY IDENTIFICATION

Product Name: TRIFOLIUM PRATENSE (RED CLOVER FLOWERS) FE 1:1 45%

Product code: FT018

Product use: Herbal medicinal product

Company: G. Baldwin & Co. Ltd.

171-173 Walworth Road London, SE17 1RW, UK Email: sales@baldwins.co.uk

Emergency telephone number: +44 (0)2077035550

2. COMPOSITION, INFORMATION ON INGREDIENTS

Mixtures

CAS No	EC No	Molecular	Name
		formula	
N/A	N/A	N/A	Trifolium pratense (Red Clover Flowers) cut
64-17-5	200-578-6	C2H6O	Ethanol
7732-18-5	231-791-2	H2O	Water

3. HAZARD(S) IDENTIFICATION

Hazard Classification: Flammable liquids, category 3

Signal Word: Warning

Hazard Statements: H320: Causes eyes irritation

H226: Flammable liquid

Hazard Pictograms:



Precautionary Statements: Keep away from heat, hot surfaces, and other ignition sources

4. FIRST-AID MEASURES

After skin contact: Remove contaminated clothing wash the affected area thoroughly with soap and water. If discomfort persists seek medical attention.

After eye contact: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

Version: 1.0 Page 1 of 7

After inhalation: Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

After swallowing: DO NOT INDUCE VOMITING. In case of spontaneous vomiting, ensure vomit can drain freely to prevent danger of suffocation. Never give anything by mouth to an unconscious person when conscious, rinse mouth with 500ml water. If there is difficulty in breathing give oxygen. If breathing stops or shows signs of failing, apply artificial respiration. Obtain medical attention should symptoms persist.

5. Fire-Fighting Measures

Extinguishing media:

 Suitable extinguishing media: dioxide (CO2) Nitrogen

Water spray ABC-powder Carbon

Extinguishing media which must not be used for safety reasons: No restriction

Special hazards arising from the substance or mixture: In case of fire may be liberated: Carbon dioxide (CO2) Carbon monoxide

Advice for firefighters: DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

Additional information: Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers.

6. Accidental Release Measures

Personal precautions: Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. Avoid contact with skin, eyes, and clothes.

Measures for environmental protection: Prevent contamination of soils, drains and surface water

Measures for cleaning/collecting: Spilled product must never be returned to the original container for recycling sweep up or absorb material, then place into a suitable clean dry, closed container for disposal. Wash area with detergent and water.

Additional information: Clear spills immediately

7. Handling and Storage

Handling: Product should be handled according to good industrial practice. Use in well ventilated area avoid inhaling vapor. Avoid contact with eyes, skin, and clothing. Keeping container tightly closed when not in use. Keep away from sources of ignition. - No smoking. Usual measures for fire prevention. slight dehydrating effect (hygroscopic).

Conditions for safe storage:

• Storage temperature: 15-25 °C

Storage class:

• Storage area: should be cool, well ventilated. Store away from sources of heat an ignition. Storage and transfer should be adequately earthed and bounded to the accumulation of static charge

8. Exposure Controls/Personal Protection

Control parameters: no data available

Exposure controls:

- Appropriate engineering controls: Technical measures and the application of suitable work processes have priority over personal protection equipment
- Personal protection equipment:
 - Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).
 - Eye/face protection
 - Eye glasses with side protection DIN-/EN-Norms: DIN EN 166
 - Skin protection
 - When handling with chemical substances, protective gloves must be worn with the CElabel including the four control digits. Recommended glove articles DIN-/EN-Norms: DIN EN 374. In the case of wanting to use the gloves again, clean them before taking off and air them well.
- Environmental exposure controls: no data available

9. Physical and Chemical Properties

Information on basic physical and chemical properties:

Appearance: Orange-brown mobile liquid Odour. Characteristic Odour Threshold: no data available no data available Melting point/freezing point Melting point/range: no data available Initial boiling point and boiling range: no data available 25°C (77°C) Flash point: Evaporation rate: no data available Flammability (solid, gas): no data available Upper/lower flammability or explosive limits: no data available Vapour pressure: no data available Vapour density: no data available Relative density: no data available Solubility(ies): no data available Partition coefficient: n-octanol/water: no data available Auto-ignition temperature: no data available Decomposition temperature: no data available Viscosity: no data available no data available Explosive properties: Oxidizing properties: no data available Ethanol Content: 39 - 46% (v/v)

Other safety information:

Bulk density: no data available
 Refraction index: no data available

no data available Dissociation constant: Surface tension: no data available no data available Henry constant:

10. Stability and Reactivity

Reactivity: no data available

Chemical stability: stable at storage temperature

Possibility of hazardous reactions: no data available Conditions to avoid: no data available

Incompatible materials: strong oxidizer. Nitric acid

Hazardous decomposition products: no data available

11. Toxicological Information

Information on toxicological effects:

Acute effects

o Acute oral toxicity: LD50 (oral. Rat): 6200 mg/kg (CHP) (Ethanol)

Acute dermal toxicity: LD50 (dermal. Rabbit): >20000 mg/kg (CHP)

Acute inhalation toxicity: LC50 (inhalative. Rat. 4h): >8000 mg/l (CHP) (Ethanol)

Irritant and corrosive effects:

Primary irritation to the skin: not applicable Irritation to eyes: not applicable Irritation to respiratory tract: not applicable

Respiratory or skin sensitisation: in case of skin contact: not sensitising

After inhalation: not sensitising

STOT-single exposure: not applicable

not applicable STOT-repeated exposure:

CMR effects (carcinogenicity, mutagenicity, and toxicity for reproduction):

o Carcinogenicity: no indication of human carcinogenicity.

 Germ cell mutagenicity: no indications of human germ

cell mutagenicity exist

 Reproductive toxicity: for ethanol components of preparation, adverse effects on male reproductive systems have been reported in laboratory animals on prolonged exposure

 Aspiration hazard: not applicable Other adverse effects: no data available

 Additional information: no data available

12. Ecological Information

Ecotoxicity

Acute (short-term) fish toxicity:

 Chronic (long-term) fish toxicity:
 Acute (short-term) daphnia toxicity:
 Chronic (long-term) daphnia toxicity:
 Acute (short-term) daphnia toxicity:
 Acute (short-term) algae toxicity:
 Chronic (long-term) algae toxicity:
 Chronic (long-term) algae toxicity:

Persistence and degradability: readily biodegradable

Bioaccumulative potential: Partition coefficient: n-octanol/water: no data available

Precautions Prevent surface contamination of soil,

ground & surface water.

Mobility in soil: no data available

Results of PBT/vPvB assessment: no data available

Other adverse effects: no data available

13. Disposal Considerations

Waste treatment methods:

- Appropriate disposal / Product:
 - o Avoid disposing to drainage systems and into the environment. Seek expert advice.
 - Dispose according to local legislation: Consult the appropriate local waste disposal expert about waste disposal.
 - Waste code product: no data available
- Appropriate disposal / Package:
 - Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.
 - Additional information: This material must be disposed of as hazardous waste according to special waste regulations 1996 or according to local regulations, in compliance with duty of care regulations and special waste regulations as waste from manufacturing, supply and use of pharmaceuticals.

14. Transport Information

Land transport (ADR/RID)

• UN number: 1293

UN proper shipping name: Tinctures, medicinal
 Classification: R10 Flammable liquid

Transport hazard class(es): 3Packaging group: II

Transport (Tunnel Restriction Code D/E) Category 2

Environmental hazards: No

Special precautions for user:

Hazard identification number (kemler No.): no data available

Tunnel restriction code: no data available

Sea transport (IMDG)

• UN number: 1293

UN proper shipping name: Tinctures, medicinal
 Classification: R10 Flammable liquid

Transport hazard class(es): 3
 Packaging group: II
 Environmental hazards: No
 Marine pollutant: No

Special precautions for user: no data available

Transport in bulk according to Annex II

of MARPOL 73/78 and the IBC Code: Not relevant

Air transport (ICAO-TI / IATA-DGR)

• UN number: 1293

UN proper shipping name: Tinctures, medicinal
 Classification: R10 Flammable liquid

Transport hazard class(es): 3Packaging group: II

Special precautions for user: Not relevant

15. Regulatory Information (non-mandatory)

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

General rules:

- Water hazard class (WGK): slightly hazardous to water (WGK 1)
- EU: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)
- EU: 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 (Text with EEA relevance)
- EU: Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) (Text with EEA relevance)

Chemical Safety Assessment: no data available

16. Other Information

Cosmetics Directive - 7th Amendment - Not Restricted

Abbreviations and acronyms:

- ACGIH American Conference of Governmental Industrial Hygienists
- ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
- AGS Committee on Hazardous Substances (Ausschuss f
 ür Gefahrstoffe)

- CLP Regulation on Classification, Labelling and Packaging of Substances and Mixtures
- DFG German Research Foundation (Deutsche Forschungsgemeinschaft)
- Gestis Information system on hazardous substances of the German Social Accident
- Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)
- IATA-DGR International Air Transport Association-Dangerous Goods Regulations
- ICAO-TI International Civil Aviation Organization-Technical Instructions
- IMDG International Maritime Code for Dangerous Goods
- LTV Long Term Value
- NIOSH National Institute for Occupational Safety and Health
- OSHA Occupational Safety & Health Administration
- (m)PBT Persistent, Bioaccumulative and Toxic
- RID Regulation concerning the International Carriage of Dangerous Goods by Rail
- STV Short Term Value
- SVHC Substances of Very High Concern
- vPvB very Persistent, very Bioaccumulative

Document history

Version	Change reason	Issue date
1.0	First issue	06.07.2021