SAFETY DATA SHEET

ASCO 45

This safety data sheet complies with the requirements of: Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS #: NP-0101-1-A

Revision date: 2018-07-18

Format: EU Version 1.01

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) NP-0101-1-A

Product Name ASCO 45

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

Recommended Use: A plant strengthener/foliar spray for use in agriculture and horticulture

Restrictions on useUse as recommended by the label.

1.3. Details of the supplier of the safety data sheet

Manufacturer FMC Agro Limited

Rectors Lane Pentre Flintshire CH5 2DH United Kingdom

Tel: + 44 (0) 1244 537370 E-mail: fmc.agro.uk@fmc.com

For further information, please contact:

Contact point Tel: +44(0)1244 537370

Email: fmc.agro.uk@fmc.com

1.4. Emergency telephone number

Emergency telephone Tel: +44(0)1244 537370 (Office hours only)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture Regulation (EC) No 1272/2008

This product has no classification under CLP This product has no label elements.

2.2. Label elements

Hazard pictograms

This product has no classification under CLP

This product has no label elements.

Version 1.01

2.3. Other hazards

This product is not identified as a PBT/vPvB substance.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

The product is a mixture, not a substance.

3.2 Mixtures: Contains no reportable hazardous ingredients according to Regulation (EC) No 1272/2008

Chemical nature

Non-classified ingredients:.

Chemical name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Ascophyllum nodosum	Present	84775-78-0	30-50	Not classified	01-2120070500-70- XXXX

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist.

Skin Contact Immediately remove all stained or splashed clothing that is not adhering to the skin. Wash

off immediately with soap and plenty of water. Consult a doctor if necessary.

Inhalation Remove person from exposure ensuring one's own safety while doing so. Get medical

attention immediately if symptoms occur.

Ingestion Clean mouth with water. Get medical attention if symptoms occur.

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

Most important symptoms and effects, both acute and delayed

Skin contact: May see mild irritation at the site of contact.

Eye contact: Possible irritation and redness.

Ingestion: Possible irritation of the throat.

Inhalation: May experience irritation of the throat with a feeling of tightness in the chest.

Delayed/Immediate effects: Immediate effects can be expected after short-term exposure.

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

Indication of immediate medical attention and special treatment needed, if necessary

First aid responders should wear rubber or nitrile gloves to prevent staining of skin.

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Dry chemical, CO2, water spray or regular foam. Cool containers / tanks with water spray.

Version 1.01

Unsuitable extinguishing media

No information available

5.2. Special hazards arising from the substance or mixture

Toxic fumes may be released in fire situations.

Hazardous Combustion

Carbon oxides, Nitrogen oxides (NOx).

Products

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

For personal protection see section 8. In case of spill, avoid contact. Isolate area and keep out animals and unprotected persons. Isolate and post spill area. Stop leak if you can do it without risk. Keep people away from and upwind of spill/leak.

For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Small spills can be washed to drain with copious amounts of water. For large spills(>10 L),

absorb spill onto sand, sawdust or absorbent clay. Sweep up and transfer to closable, labelled containers for disposal. Wash the spillage site with water once the spillage is removed. Product will stain concrete. Refer to section 13 of SDS for suitable method of

disposal.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling

Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact by using personal protective equipment. Avoid breathing vapours or mists. Keep out of reach of children. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Protect from freezing. Store above 5°C. Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat and sources of ignition. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Version 1.01

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration

(PNEC)

PNEC: Fresh water 65.3 µg/L PNEC: Marine water 6.53 µg/L

PNEC: Water - intermittent releases 653 µg/L

PNEC: Soil 4.7 µg/kg.soil

PNEC: Sewage treatment plant 1 mg/L (STP).

8.2. Exposure controls

Engineering measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection Safety glasses with side-shields. Maintain eye wash fountain and quick-drench facilities in

work area.

Hand Protection Rubber gloves. Nitrile gloves. PVC gloves. Chemical resistant according to EN 374.

Skin and Body Protection Impervious clothing.

Respiratory Protection Not required under normal use.

Environmental exposure controls Refer to specific Member State legislation for requirements under Community

environmental legislation.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical StateLiquidAppearanceLiquidOdourMarineColourBlack, Brown

Odour threshold No information available

pH 8.5 - 10.0 Melting point/freezing point > 300 °C

Boiling point/boiling range
Flash point
Evaporation Rate
Flammability (solid, gas)

No information available
No information available
No information available

Flammability Limit in Air

Upper flammability limit:
Lower flammability limit
Vapour pressure
Vapour density

No information available
No information available
No information available

Specific gravity 1.19 - 1.22 **Water solubility** Soluble in water

Solubility in other solvents No information available

Partition coefficient n-octanol/water: Log Kow = 3.3 (22°C)

Autoignition temperature 550 °C

Decomposition temperature
Viscosity, kinematic

No information available
No information available

Viscosity, dynamic <300 cP

Explosive propertiesNo information available
Non-oxidizing (by EC criteria)

Version 1.01

9.2. Other information

Softening pointNo information availableMolecular weightNo information availableVOC content (%)No information available

Density 1.19 - 1.22

Bulk densityNo information available K_{st} 51.1 mN/m (1 g/L at 20°C)

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended storage conditions

10.2. Chemical stability

Stable under recommended storage conditions.

Explosion data

Sensitivity to Mechanical Impact No information available. **Sensitivity to Static Discharge** No information available.

10.3. Possibility of hazardous reactions

Hazardous polymerisation

Hazardous polymerization does not occur.

Hazardous reactions

None under normal processing. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Heat. Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight. Moisture. Frost.

10.5. Incompatible materials

Strong oxidising agents. Strong reducing agents. Strong acids.

10.6. Hazardous decomposition products

See Section 5.2 for more information.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Product Information

No acute toxicity information is available for this product.

Skin corrosion/irritation
Serious eye damage/eye irritation
Sensitisation
Mutagenicity
Carcinogenicity

No information available.

Version 1.01

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
No information available.
No information available.

Symptoms Skin contact: May see mild irritation at the site of contact.

Eye contact: Possible irritation and redness.

Ingestion: Possible irritation of the throat.

Inhalation: May experience irritation of the throat with a feeling of tightness in the chest.

Delayed/Immediate effects: Immediate effects can be expected after short-term exposure.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity ALGAE (Selenastrum capricornutum): 72H EbC50 60.35 mg/L

ALGAE (Selenastrum capricornutum): 72H ErC50 >100 mg/L

DAPHNID (Daphnia magna): 48H IC50 >100 mg/L ZEBRAFISH (Danio rerio): 96H LC50 >100 mg/L

12.2. Persistence and degradability

Readily biodegradable (>60 % after 17 days).

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products

Transfer to a suitable container and arrange for collection by specialised disposal company. Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not

Version 1.01

discharge to sewer systems.

Contaminated Packaging Dispose of in accordance with local regulations.

EWC Waste Disposal No 02 01 09

OTHER INFORMATION NOTE: The user's attention is drawn to the possible existence of specific European,

national or local regulations regarding disposal.

Section 14: TRANSPORT INFORMATION

NOTE NOT CLASSIFIED AS DANGEROUS IN THE MEANING OF TRANSPORT

REGULATIONS.

IMDG/IMO

14.1 UN/ID noNot regulated14.2 Proper Shipping NameNot regulated14.3 Hazard classNot regulated14.4 Packing GroupNot regulated14.5 Marine PollutantNot applicable

14.6 Special Provisions None

14.7 Transport in bulk according to The product is not transported in bulk containers.

Annex II of MARPOL and the IBC

Code

RID

14.1UN/ID noNot regulated14.2Proper Shipping NameNot regulated14.3Hazard classNot regulated14.4Packing GroupNot regulated14.5Environmental HazardNot applicable

14.6 Special Provisions None

ADR/RID

14.1 UN/ID noNot regulated14.2 Proper Shipping NameNot regulated14.3 Hazard classNot regulated14.4 Packing GroupNot regulated14.5 Environmental HazardNot applicable

14.6 Special Provisions None

ICAO/IATA

14.1 UN/ID noNot regulated14.2 Proper Shipping NameNot regulated14.3 Hazard classNot regulated14.4 Packing GroupNot regulated14.5 Environmental HazardNot applicable

14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

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

European Union

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Version 1.01

Not Applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not Applicable

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Ascophyllum nodosum 84775-78-0		Х	Х					Х

15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the substance or the mixture by the supplier.

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of R-phrases referred to under sections 2 and 3

Not applicable

<u>Legend</u>

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: CAS (Chemical Abstracts Service)

Ceiling: Maximum limit value:

DNEL: Derived No Effect Level (DNEL)

EINECS: EINECS (European Inventory of Existing Chemical Substances)

GHS: Globally Harmonised System (GHS)

IATA: International Air Transport Association (IATA)
ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods (IMDG)

LC50: LC50 (lethal concentration)

LD50 (lethal dose)

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

STEL: Short term exposure limit

SVHC: Substances of Very High Concern for Authorisation:

TWA: time weighted average

vPvB: very Persistent and very Bioaccumulative

Revision date: 2018-07-18

Reason for revision: Format Change.

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

Prepared By

FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2018 FMC Corporation. All Rights Reserved.

Version 1.01

End of Safety Data Sheet