Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 1 / 10



1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Chemical Name : JetShield

Common Name : Agricultural Adjuvant

Chemical Description : Deposition aid, canopy penetrating agent, drift control agent, non-ionic surfactant and

antifoaming agent

1.2. Recommended use of the chemical and restrictions on use

Recommended use : Adjuvant- see product label for full directions for use.

Non-recommended

use(s)

: See product label for an restrictions on use.

1.3. Details of the supplier of the safety data sheet

Company : WINFIELD SOLUTIONS, LLC

P.O. Box 64589 St. Paul, MN 55164-0589 USA

Telephone :Medical Emergency: 1-877-424-7452 (24 hrs)

:Non-Emergency Business Inqueries: 1-855-494-6343 (Mon-Fri 8am-5pm CST)

1.4. Emergency telephone number

Emergency: Non-Emergency Phone Number: 1-855-494-6363 (M-F 8AM-5PM CST)

information In case of emergency call CHEMTREC US: 1-800-424-9300

24 HOUR EMERGENCY TELEPHONE NUMBERS: CHEMTREC - US & CANADA toll free: +1-800-424-9300

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 29CFR 1910.1200

Chronic aquatic toxicity Category 3 H412

2.2. Label elements

hazard statement : H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statement : P273 - Avoid release to the environment.

 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 2 / 10



(Prevention)

Precautionary

: P501 - Dispose of contents/container in accordance with local regulation.

Statement (Disposal)

2.3. Other hazards

None known

3. Composition/information on ingredients

3.1. Substances

_

3.2. Mixtures

Classification according to Regulation 29CFR 1910.1200

Chemical Name	NJ Trade secrets CAS-No.	Concentration	Classification
Polyether Modified	-	> 20.0000 %	
Polysiloxane (CASRN	-		
Proprietary)			

Texts of H phrases, see in Chapter 16

4. First aid measures

4.1. Description of first aid measures

General advice : Remove soiled or soaked clothing immediately

Inhalation : Remove individual from site of exposure to fresh air. If not breathing, give artificial

respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Skin contact : Remove soiled or soaked clothing immediately. Wash off immediately with soap and

water. Consult a physician if irritation persists.

Eye contact : Flush eye(s) for 15 minutes or more; if irritation persists, consult a physician

(preferably an eye specialist) and show MSDS.

Ingestion : If swallowed, seek medical attention and show MSDS.

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

Symptoms : No special hints.

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

Treat symptomatically.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing

: foam, carbon dioxide, dry powder, water spray.

media

Unsuitable : Full water jet

extinguishing media

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

- Carbon monoxide, carbon dioxide, silicon dioxide

5.3. Advice for firefighters

 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 3 / 10



As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

Collect contaminated firefighting water separately, must not be discharged into the drains.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2. Environmental precautions

Do not allow to enter drains or waterways Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe

: No special measures necessary if stored and handled as prescribed.

handling

Handling : no data available

Hygiene measures : No smoking, eating or drinking allowed when using this product. Wash hands before

breaks and at end of work shift.

General protective

measures

: Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin

7.2. Conditions for safe storage, including any incompatibilities

Prevention of fire and explosion

Information : No special measures required.

Storage

Information : none

Further information on

storage conditions

: Keep container closed.

8. Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)

Ingredients	CAS-No.	Statutory basis/list (Update)	Value type (Form of exposure; Expressed as)	Value	Short-term	
Polyether Modified Polysiloxane (CASRN Proprietary)		OSHA PEL	TWA			
	Not Established					

8.2. Exposure controls

Engineering controls

Appropriate : Good general (mechanical) ventilation should be sufficient to control airborne levels.

 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 4 / 10



engineering controls

Personal protective equipment

Eye protection : Use chemical resistant goggles.

Hand protection : PVC gloves

The protective gloves to be worn must satisfy the specifications of EC Guideline

89/686/EEC and the resulting Standard EN374.

Body Protection : protective clothing

Respiratory : In case of vapors/aerosols: Use respiratory protective equipment, cartridge for

protection organic gases and vapors.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : liquid

Form : liquid
Colour : yellowish
Odour : slight, typical
Odour Threshold : not measured

pH : not applicable

Melting point : not measured

Boiling point : not measured

Flash point : > 212 °F

Method: TAG CC

Evaporation rate : Unavailable

Flammability : no data available

Upper

Explosion/Ignition

Limit

Lower explosion limit : not measured

Vapour pressure : not measured

Relative vapour

density

: not measured

: not measured

Relative density : no data available

Solubility : not measured

Water solubility : soluble

Partition coefficient (n-octanol/water)

: not measured

 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 5 / 10



Autoignition

temperature

: not measured

Thermal

: not measured

decomposition

Viscosity, kinematic : no data available

Viscosity, dynamic : not determined

Explosive properties : not measured

Oxidising properties : not measured

9.2. Other information

Density : ca. 1 g/cm3

Metal corrosion : not measured Ignition temperature : not measured

10. Stability and reactivity

10.1. Reactivity

see section "Possibility of hazardous reactions"

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Nο

No hazardous reactions with proper storage and handling.

10.4. Conditions to avoid

None with proper storing and handling.

10.5. Incompatible materials

Unknown

10.6. Hazardous decomposition products

None with proper storage and handling.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : LD50

Species: Rat Dose: 3,612 mg/kg

Acute to xicity (inhalation)

: Acute to xicity estimate (ATEmix)

Test atmosphere: Dust/Mist

Dose: > 5 mg/l

Method: Calculation method

 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 6 / 10



Acute to xicity (demal)

: LD50 Species: rat

Dose: > 2,000 mg/kg

Irritation/corrosion of

the skin

: Species: rabbit

Result: slight irritant effect - does not require labelling

Serious eye damage/

eye irritation

: Species: rabbit

Result: slight irritant effect - does not require labelling

Remarks: Tested as undiluted product.

Respiratory/skin

sensitization

: no data available

Repeated dose

toxicity

: no data available

CMR assessment

Carcinogenicity

no data availableno data available

Mutagenicity Teratogenicity

: no data available

Toxicity to reproduction

: no data available

reproduction

: Not listed by NTP, IARC, ACGIH, or OSHA as a carcinogen.

Carcinogenicity
Specific Target

Organ Toxicity -Single exposure : no data available

Specific Target Organ Toxicity -

Organ Toxicity Repeated exposure

: no data available

Aspiration hazard

: No Aspiration toxicity classification

Other information

: Proper use provided, no adverse health effects have been observed or have been

come to our knowledge.

Eye contact may produce an oil film over the eye-ball causing a harmless reversible

shortlasting dimness of sight.

12. Ecological information

Ecotoxicology Assessment

Acute aquatic toxicity : no data available

Chronic aquatic

toxicity

: no data available

12.1. Toxicity

Aquatoxicity, fish : Species: rainbow trout

Exposure duration: 96 h

LC50: 12 mg/l Method: OECD 203

Aquatoxicity, invertebrates

: Species: Daphnia magna Exposure duration: 48 h

EC50: 110 mg/l

1.12 / US Version Revision date 01/13/2020 **Print Date** 01/13/2020 Page 7/10



Method: OECD 202

Aquatoxicity, algae / aquatic plants

: Exposure duration: 72 h ErC50: > 100 mg/l Method: OECD 201

Toxicity in

microorganisms

: no data available

chronic toxicity in fish

: no data available

Chronic toxicity in aquatic Invertebrates : no data available

Toxicity in organisms which live in the soil

: no data available

Toxicity in terrestrial

plants

: no data available

Toxicity to Above-Ground Organisms : no data available

12.2. Persistence and degradability

Photodegradation : no data available

Biological degradability : no data available

Physico-chemical removability

: no data available

Biochemical Oxygen

Demand (BOD)

: no data available

Chemical Oxygen Demand (COD)

: 1,900 mg/g

relation of BOD/COD

: no data available

Dissolved organic carbon (DOC)

: no data available

Adsorbed organic bound halogens

: no data available

(AOX) Distribution among

environmental compartments : no data available

12.3. Bioaccumulative potential

: no data available Bioaccumulation

12.4. Mobility in soil

: no data available Environmental

 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 8 / 10



distribution

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

: no data available

12.6. Other adverse effects

General Information : The product is considered to be a water pollutant (German law).

Do not allow to enter soil, waterways or waste water canal.

13. Disposal considerations

13.1. Waste treatment methods

Product : In accordance with local authority regulations, take to special waste incineration plant

Contaminated packaging

: If empty contaminated containers are recycled or disposed of, the receiver must be

informed about possible hazards.

14. Transport information

Not dangerous according to transport regulations.

14.1 UN number:

14.2 UN proper shipping name:

14.3 Transport hazard class (es):

14.4 Packing group: --

14.5 Environmental hazards: --

14.6 Special precautions for user: No

15. Regulatory information

Canada:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation and the (M)SDS contains all information required by the Controlled Products Regulation

Canada : <u>WHMIS CLASSIFICATION</u>

Non-WHMIS

All intentional ingredients are listed on the DSL (Domestic Substance List) or have

been notified pursuant to the NSN regulations.

US regulations:

SAR A Title III Section

: Acute Health Hazard

311/312 Hazard Categories

Calegolies

: CTFA: complies

State Right to Know

Other regulations

No components subject to "Right-To-Know" legislation in the following States: NJ,

PA, MA and RI

SARA 313: This product contains no SARA Title III, Section 313 listed chemicals.

 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 9 / 10



SAR A EHS: NO

California Proposition

: Notification : No

65 Statement

This product does not contain any substance(s) which are defined by the state of

California to cause cancer, birth defects, or other reproductive effects.

HMIS Ratings Health: 2

Flammability: 1
Reactivity: 0
Personal Protection: X

Notification status

USA (TSC A) : listed/registered or exempted Canada (DSL) : listed/registered or exempted

16. Other information

List of references

Revision date : 04/30/2015

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 Version
 1.12 / US

 Revision date
 01/13/2020

 Print Date
 01/13/2020

 Page
 10 / 10



Legend

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

Waterways

ADNR European agreement concerning the international carriage of dangerous goods by inland

waterways (ADN)

ASTM American Society for Testing and Materials

ATP Adaptation to Technical Progress

BCF Bioconcentration factor

BetrSichV German Ordinance on Industrial Safety and Health

c.c. closed cup

CAS Chemical Abstract Services

CESIO European Committee of Organic Surfactants and their Intermediates

Chem G German Chemicals Act

CMR carcinogenic-mutagenic-toxic for reproduction

DIN German Institute for Standardization

DM EL Derived minimum effect level

DNEL Derived no effect level

EINECS European Inventory of Existing Commercial Chemical Substances

EC50 half maximal effective concentration

GefStoffV German Ordinance on Hazardous Substances

GGVSEB German ordinance for road, rail and inland waterway transportation of dangerous goods

GGVSee German ordinance for sea transportation of dangerous goods

GLP Good Laboratory Practice
GMO Genetic Modified Organism

IATA International Air Transport Association
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
ISO International Organization For Standardization

LOAEL Lowest observed adverse effect level

LOELLowest observed effect levelNOAELNo observed adverse effect levelNOECno observed effect concentration

NOEL no observed effect level

o. c. open cup

OECD Organisation for Economic Cooperation and Development

OEL Occupational Exposure Limit
PBT Persistent, bioaccumulative, toxic
PEC Predicted effect concentration
PNEC Predicted no effect concentration

REACH REACH registration

RID Convention concerning International Carriage by Rail

STOT Specific Target Organ Toxicity
SVHC Substances of Very High Concern

TA Technical Instructions

TPR Third Party Representative (Art. 4)

TRGS Technical Rules for Hazardous Substances
VCI German chemical industry association
vPvB very persistent, very bioaccumulative

VOC volatile organic compounds

VwVwS German Administrative Regulation on the Classification of Substances Hazardous to Waters

into Water Hazard Classes

WGK Water Hazard Class WHO World Health Organization